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OM protein - protein search, using sw model

Run on: July 4, 2004, 04:30:15; Search time 16.403 Seconds

(without alignments)

120.578 Million cell updates/sec

Title: US-09-641-802-1

Perfect score: 42

Sequence: 1 MQPPPLP 7

Scoring table: BLOSUM62

Gapop 10.0, Gapext 0.5

Searched: 1586107 seqs, 282547505 residues

Total number of hits satisfying chosen parameters: 422553

Minimum DB seq length: 7
Maximum DB seq length: 18

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database: A Geneseq 29Jan04:*

1: geneseqp1980s:*

2: geneseqp1990s:*

3: geneseqp2000s:*

4: geneseqp2001s:*

5: geneseqp2002s:*

6: geneseqp2003as:*

7: geneseqp2003bs:*

8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	42	100.0	7	4	AAB72500	Aab72500 Colostrin
2	42	100.0	7	4	AAB59324	Aab59324 Ewe colos
3	42	100.0	7	4	AAB72246	Aab72246 Colostrin
4	42	100.0	7	4	AAB72532	Aab72532 Colostrin
5	42	100.0	7	5	AAO14577	Aao14577 Neural ce
6	42	100.0	7	5	AAM51036	Aam51036 Colostrin
7	42	100.0	7	5	AAE20228	Aae20228 Colostrin
8	42	100.0	8	4	AAB59354	Aab59354 Ewe colos
9	36	85.7	12	7	ADC36090	Adc36090 Chemokine

10	34	81.0	12	6	AAE32821	Aae32821	Human CEA
11	34	81.0	15	3	AAY85491	Aay85491	Human ced
12	34	81.0	16	3	AAY85494	Aay85494	Human ced
13	33	78.6	7	4	AAM46973	Aam46973	H11 bindi
14	33	78.6	10	2	AAW06853	Aaw06853	Peptide b
15	33	78.6	11	3	AAB21127	Aab21127	Src homol
16	33	78.6	12	2	AAW06845	Aaw06845	Peptide b
17	33	78.6	13	2	AAW38072	Aaw38072	PPPPY mot
18	33	78.6	13	7	ADB49333	Adb49333	Biotinyla
19	32	76.2	7	2	AAR60997	Aar60997	Fragment
20	32	76.2	7	2	AAR91752	Aar91752	Prolyl en
21	32	76.2	7	4	AAM46827	Aam46827	H11 bindi
22	32	76.2	7	4	AAM46861	Aam46861	H11 bindi
23	32	76.2	7	4	AAM46876	Aam46876	Hll bindi
24	32	76.2	7	4	AAM47027	Aam47027	Hll bindi
25	32	76.2	7	4	AAM46856	Aam46856	H11 bindi
26	32	76.2	7	4	AAM46871	Aam46871	Hll bindi
27	32	76.2	7	4	AAM46851	Aam46851	H11 bindi
28	32	76.2	7	4	AAM46866	Aam46866	H11 bindi
29	32	76.2	8	2	AAR71945	Aar71945	Human 3BP
30	32	76.2	10	2	AAR77371	Aar77371	SH3 bindi
31	32	76.2	10	2	AAW06861	Aaw06861	Peptide b
32	32	76.2	10	2	AAW38097	Aaw38097	PPPPY mot
33	32	76.2	10	2	AAW38074	Aaw38074	PPPPY mot
34	32	76.2	10	4	AAB86131	Aab86131	Proline-r
35	32	76.2	10	4	AAB86149	Aab86149	Proline-r
36	32	76.2	10	4	AAB70933	Aab70933	Polyoma v
37	32	76.2	10	7	ADB49372	Adb49372	Biotinyla
38	32	76.2	10	7	ADB49335		Biotinyla
39	32	76.2	11	3	AAB21129	Aab21129	Src homol
40	32		. 11	3	AAB21132	Aab21132	Src homol
41	32	76.2	11	3	AAB21126	Aab21126	Src homol
42	32	76.2	11	5	ABB99165		Formin-2
43	32	76.2	11	5	ABB99166	Abb99166	Formin-2
44	32	76.2	12	2	AAW03154	Aaw03154	Potential
45	32	76.2	12	2	AAW05101		Proline-r
46	32	76.2	12	2	AAW25457		SH3 domai
47	32	76.2	12	3	AAB18002		Fc-TNF al
48	32	76.2	12	6			Mad2 bind
49	32	76.2	13	2	AAR84641		Grb2-SOS
50	32	76.2	13	4	AAB70928		Polyoma v
51	32	76.2	13	6	ABU10225		Human cyt
52	32	76.2	13	7	AAE39883		Human cyt
53	32	76.2	14	2	AAW05490		SH3-bindi
54	32	76.2	14	2	AAW38067		PPPPY mot
55	32	76.2	14	7	ADB49257		Biotinyla
56	32	76.2	15	2	AAW39034		Peptide r
57	32	76.2	15	2	AAW39005		Peptide r
58	32	76.2	15	2	AAW39050		Peptide r
59 60	32	76.2	15	2	AAW38988		Peptide r
60 61	32	76.2	15	2	AAW39035		Peptide r
61 62	32	76.2	15	2	AAW38959		Peptide r
62 63	32	76.2	15 15	2	AAW39015		Peptide r
63	32	76.2	15	2	AAW39040		Peptide r
64 65	32	76.2	15 16	2	AAY41635		Mammalian
65 66	32	76.2	16	2	AAW25411		Crk N-ter
66	32	76.2	17	2	AAW38977	Aaw389//	Peptide r

```
76.2
 67
        32
                     17 2 AAW38963
                                                     Aaw38963 Peptide r
 68
        32
             76.2
                     18 2 AAR91750
                                                    Aar91750 Prolyl en
 69
        32
             76.2
                     18 2 AAR91746
                                                    Aar91746 Prolyl en
70
        32
             76.2
                     18 2 AAW38923
                                                    Aaw38923 Peptide r
 71
        32
             76.2
                     18 2 AAW39010
                                                    Aaw39010 Peptide r
 72
             73.8
                     12 3 AAY56628
        31
                                                    Aay56628 Virus-lik
                     12 3 AAY56271
13 2 AAW05447
 73
             73.8
                                                    Aay56271 Human cat
        31
                 13 2 AAW37655
13 7 ADB49202
 74
        31
             73.8
                                                    Aaw05447 SH3-bindi
 75
             73.8
        31
                                                    Aaw37655 PPPPY mot
76
        31
             73.8
                                                   Adb49202 Biotinyla
                    13 7 ADB49281
 77
        31
             73.8
                                                    Adb49281 Novel WW
78
        31
             73.8
                    14 3 ADC16813
                                                    Adc16813 Human sin
79
                     15 2 AAW38905
        31
             73.8
                                                    Aaw38905 Peptide r
                     16 2 AAW38947
80
        31
             73.8
                                                    Aaw38947 Peptide r
81
        31
             73.8
                     17 2 AAW38104
                                                    Aaw38104 Peptide r
82
        31
             73.8
                     17 7 ADB49204
                                                    Adb49204 Biotinyla
83
        30
             71.4
                     7 4 AAM47005
                                                    Aam47005 H11 bindi
84
        30
             71.4
                     7 4 AAM47010
                                                    Aam47010 H11 bindi
                      9 2 AAR60998
85
        30
             71.4
                                                    Aar60998 Sequence
86
        30
             71.4
                      9 6 ABR28254
                                                    Abr28254 Human can
                      9 6 ABR28252
87
        30
             71.4
                                                    Abr28252 Human can
                                                  Abr27236 Human can
                     9 6 ABR27236
88
        30
             71.4
            71.4 10 2 AAR93318
71.4 10 2 AAR93322
89
        30
                                                   Aar93318 ABL prote
90
        30
                                                   Aar93322 ABL prote
91
        30
             71.4
                    10 2 AAR93342
                                                   Aar93342 TSK prote
92
        30
             71.4
                    10 2 AAR93319
                                                    Aar93319 ABL prote
             71.4
                    10 2 AAR93320
93
        30
                                                    Aar93320 ABL prote
                    10 2 AAR93339
94
        30
             71.4
                                                    Aar93339 TSK prote
                     10 2 AAR93321
95
        30
             71.4
                                                    Aar93321 ABL prote
96
        30
             71.4
                    10 2 AAR93340
                                                   Aar93340 TSK prote
97
        30
             71.4
                    10 2 AAR93317
                                                   Aar93317 ABL prote
98
        30
             71.4
                     10 2 AAR93314
                                                    Aar93314 ABL prote
99
        30
             71.4
                     10 2 AAR93315
                                                    Aar93315 ABL prote
            71.4
100
        30
                     10 2 AAR93316
                                                    Aar93316 ABL prote
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ALIGNMENTS

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RESULT 1
AAB72500
ID
     AAB72500 standard; peptide; 7 AA.
XX
AC
     AAB72500;
XX
DT
     09-MAY-2001 (first entry)
XX
DE
    Colostrinin peptide #1.
XX
KW
     Dermatological; oxidative stress regulator; colostrinin.
XX
    Unidentified.
os
XX
     WO200112650-A2.
PN
XX
PD
     22-FEB-2001.
XX
```

```
17-AUG-2000; 2000WO-US022665.
PF
XX
PR
     17-AUG-1999;
                   99US-0149310P.
XX
PA
     (TEXA ) UNIV TEXAS SYSTEM.
XX
PΙ
     Stanton GJ, Hughes TK, Boldogh I;
XX
DR
    WPI; 2001-218342/22.
XX
PT
    Modulating oxidative stress level in a cell, involves contacting the cell
PT
     with an oxidative stress regulator selected from colostrinin, its
PT
     constituent peptide, analog or their combinations.
XX
PS
     Claim 6; Page 25; 48pp; English.
XX
CC
     The present invention relates to a method for modulating the oxidative
CC
     stress level in a cell or a patient, comprising contacting the cell with,
CC
     or administering to the patient, an oxidative stress regulator selected
CC
     from colostrinin, or its constituent peptide (e.g. the present peptide),
CC
     to change the level of an oxidising species in the cell. The method can
CC
    be used to treat oxidative damage to skin, by decreasing or preventing an
CC
     increase in the level of damage to a biomolecule of the patient
XX
SQ
     Sequence 7 AA;
  Query Match
                          100.0%; Score 42; DB 4; Length 7;
                         100.0%; Pred. No. 1.4e+06;
  Best Local Similarity
             7; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
            1 MQPPPLP 7
Qу
             Db
            1 MOPPPLP 7
RESULT 2
AAB59324
ID
    AAB59324 standard; peptide; 7 AA.
XX
    AAB59324;
AC
XX
DT
     21-MAR-2001 (first entry)
XX
DE
     Ewe colostrinin peptide fragment B-9.
XX
KW
     Sheep; colostrinin; proline rich polypeptide; colostrum; immune disorder;
KW
     central nervous system disorder; dietary supplement; beta-amyloid plaque.
XX
OS
     Ovis sp.
XX
PN
     WO200075173-A2.
XX
PD
     14-DEC-2000.
XX
PF
     02-JUN-2000; 2000WO-GB002128.
XX
PR
     02-JUN-1999;
                   99GB-00012852.
```

```
XX
PA
     (REGE-) REGEN THERAPEUTICS PLC.
XX
PΙ
     Georgiades JA;
XX
     WPI; 2001-071058/08.
DR
XX
PT
     Peptides having an N-terminal amino acid sequence isolated from
PT
     colostrinin for treating e.g. disorders of the central nervous system and
PT
     immune system, viral and bacterial infections, and diseases characterized
PT
     by amyloid plagues.
XX
PS
     Claim 7; Page 27; 63pp; English.
XX
CC
     The present invention provides the sequences of a number of peptides
CC
     found in ewe's colostrinin. Colostrinin is the proline-rich polypeptide
CC
     fragment of colostrum. These peptides can be used in the treatment of
CC
     central nervous system disorders such as senile dementia, Parkinson's
CC
     disease, Alzheimer's disease, psychosis and neurosis, immune system
CC
     disorders such as bacterial and viral infections, to improve the
CC
     development of a child's immune system, as a dietary supplement, and to
CC
     promote the dissolution of beta-amyloid plaques
XX
SQ
     Sequence 7 AA;
  Query Match
                          100.0%; Score 42; DB 4; Length 7;
  Best Local Similarity 100.0%; Pred. No. 1.4e+06;
  Matches
             7; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
            1 MQPPPLP 7
Qу
              Db
            1 MQPPPLP 7
RESULT 3
AAB72246
     AAB72246 standard; peptide; 7 AA.
XX
AC
     AAB72246;
XX
DT
     14-MAY-2001 (first entry)
XX
DE
     Colostrinin derived cytokine inducing peptide SEQ ID 1.
XX
KW
     Colostrinin; immune response; cytokine; blood cell proliferation;
KW
     central nervous system disorder; neurological diosrder; mental disorder;
KW
     dementia; neurodegenerative disease; Alzheimer's disease; psychosis;
KW
     neurosis; infection.
XX
OS
     Synthetic.
XX
PN
     WO200111937-A2.
XX
PD
     22-FEB-2001.
XX
     17-AUG-2000; 2000WO-US022818.
PF
XX
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PR
     17-AUG-1999;
                    99US-0149311P.
XX
PΑ
     (TEXA ) UNIV TEXAS SYSTEM.
PA
     (REGE-) REGEN THERAPEUTICS PLC.
XX
PI
     Stanton GJ, Hughes TK, Boldogh I, Georgiades J;
XX
     WPI; 2001-202804/20.
DR
XX
PΤ
     Inducing a cytokine and modulating an immune response, useful for
PT
     treating central nervous system diseases and bacterial and viral
PΤ
     infections, comprises administering colostrinin as an immunological
PΤ
     regulator.
XX
PS
     Claim 1; Page 34; 50pp; English.
XX
     Sequences AAB72246 - AAB72275 represent peptides derived from clostrinin,
CC
CC
     a proline rich polypeptide aggregate contained in colostrum. The peptides
CC
     have immune response modulatory activity, and are capable of inducing
CC
     cytokines. Colostrinin and its derived peptides are useful for inducing
CC
     cytokine production, for modulating an immunological response and for
CC
     inducing blood cell proliferation. The peptides are useful in the
CC
     treatment of disorders of the central nervous system, neurological
CC
     disorders, mental disorders, dementia, neurodegenerative diseases,
CC
    Alzheimer's disease, motor neurone disease, psychosis, neurosis, chronic
CC
     disorders of the immune system, bacterial and viral infections and
CC
     acquired immunological deficiencies
XX
SQ
     Sequence 7 AA;
  Query Match
                          100.0%; Score 42; DB 4; Length 7;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+06;
 Matches
            7; Conservative
                              0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0:
            1 MQPPPLP 7
Qy
              Db
            1 MOPPPLP 7
RESULT 4
AAB72532
ID
    AAB72532 standard; peptide; 7 AA.
XX
AC
    AAB72532;
XX
DT
     09-MAY-2001 (first entry)
XX
DE
    Colostrinin peptide #1.
XX
KW
    Neuroprotective; neural cell differentiation regulator; colostrinin;
KW
     colostrum.
XX
OS
     Unidentified.
XX
    WO200112651-A2.
PN
XX
PD
    22-FEB-2001.
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XX
     17-AUG-2000; 2000WO-US022774.
PF
XX
PR
     17-AUG-1999;
                    99US-0149633P.
XX
PA
     (TEXA ) UNIV TEXAS SYSTEM.
XX
     Boldogh I;
PΙ
XX
DR
     WPI; 2001-226545/23.
XX
PT
     Use of colostrinin, its constituent peptide or analog as a neural cell
PT
     regulator, for promoting neural cell differentiation and treating damaged
PT
     neural cells in a patient.
XX
PS
     Claim 6; Page 21; 35pp; English.
XX
CC
     The present invention relates to a method for promoting neural cell
CC
     differentiation and treating damaged neural cells, using colostrinin and
CC
     colostrinin constituent peptides (e.g. the present peptide) as a neural
CC
     cell regulator. Colostrinin is a polypeptide complex found in colostrum
XX
SQ
     Sequence 7 AA;
  Query Match
                          100.0%; Score 42; DB 4; Length 7;
  Best Local Similarity 100.0%; Pred. No. 1.4e+06;
  Matches
             7; Conservative
                               0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
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Qу
              111111
Db
            1 MQPPPLP 7
RESULT 5
AA014577
     AAO14577 standard; peptide; 7 AA.
XX
AC
     AAO14577;
XX
DT
     27-MAY-2002 (first entry)
XX
DE
     Neural cell regulatory colostrinin peptide 1.
XX
KW
     Neural cell differentiation; neural cell regulator; colostrinin peptide;
KW
     neural cell formation; proline-rich polypeptide aggregate; colostrum;
KW
     neural cell treatment.
XX
OS
     Unidentified.
XX
FH
                     Location/Qualifiers
     Key
FT
     Modified-site
FT
                     /note= "Optional C-terminal amide"
XX
PN
     WO200213851-A1.
XX
PD
     21-FEB-2002.
XX
```

```
17-AUG-2000; 2000WO-US022777.
ΡF
XX
PR
     17-AUG-2000; 2000WO-US022777.
XX
PΑ
     (TEXA ) UNIV TEXAS SYSTEM.
XX
PΙ
     Boldogh I, Stanton JG, Hughes TK;
XX
     WPI; 2002-269152/31.
DR
XX
PT
     Promoting cell differentiation in a patient involves use of blood cell
PT
     regulator selected from colostrinin, its constituent peptide and/or
PT
     analog.
XX
PS
     Claim 7; Page 21; 37pp; English.
XX
CC
     The invention comprises a method for promoting cell differentiation (e.g.
     neural cell differentiation). The method involves contacting cells with a
CC
CC
     neural cell regulator (i.e. a colostrinin peptide) in order to change the
CC
     cells in morphology to form neural cells. Colostrinin is a proline-rich
CC
     polypeptide aggregate that is present in colostrum. The method of the
CC
     invention is useful for promoting the differentiation of cells and for
CC
     treating damaged neural cells in a patient. The present amino acid
CC
     sequence represents a specifically claimed colostrinin peptide used in
CC
     the method of the invention
XX
SQ
     Sequence 7 AA;
  Query Match
                          100.0%; Score 42; DB 5; Length 7;
                          100.0%; Pred. No. 1.4e+06;
  Best Local Similarity
  Matches
            7; Conservative 0; Mismatches 0; Indels
                                                                             0;
                                                                 0; Gaps
            1 MOPPPLP 7
Qу
              1111111
Db
            1 MQPPPLP 7
RESULT 6
AAM51036
     AAM51036 standard; peptide; 7 AA.
ID
XX
AC
     AAM51036;
XX
DΤ
     30-MAY-2002 (first entry)
XX
DΕ
     Colostrinin constituent peptide.
XX
KW
     Colostrinin; colostrum; immunomodulator; cardiovascular;
KW
     blood cell regulator; cytokine inducer; beta-casein; human.
XX
OS
     Homo sapiens.
XX
FΗ
                     Location/Qualifiers
     Key
FT
     Modified-site
FT
                     /note= "optional C-terminal amidation"
XX
PN
     WO200213849-A1.
```

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XX
PD
     21-FEB-2002.
XX
PF
     17-AUG-2000; 2000WO-US022775.
XX
PR
     17-AUG-2000; 2000WO-US022775.
XX
PΑ
     (TEXA ) UNIV TEXAS SYSTEM.
PΑ
     (REGE-) REGEN THERAPEUTICS PLC.
XX
     Stanton GJ, Hughes TK, Boldogh I, Georgiades J;
PΙ
XX
DR
     WPI; 2002-269150/31.
XX
PT
    Modulation of blood cell proliferation in a patient involves use of blood
PΤ
     cell regulator selected from colostrinin, its constituent peptide and/or
PT
     analog.
XX
PS
    Claim 1; Page 34; 54pp; English.
XX
CC
     The present sequence is that of a colostrinin constituent peptide that is
CC
     preferred for use as an immunological regulator and as a blood cell
CC
     regulator in claimed methods of the invention. It is classified as having
CC
     a beta-casein homologue precursor. Methods are claimed for: inducing a
CC
     cytokine in a cell by contact with an immunological regulator, where the:
CC
     cell is present in a cell culture, a tissue, an organ or an organism, and
CC
     the cell is mammalian, including human; modulating an immune response in
CC
     a cell by contact with the immunological regulator under conditions
CC
     effective to induce a cytokine; modulating an immune response in a
CC
     patient by administering an immunological regulator under conditions
CC
     effective to induce a cytokine, where the immunological regulator is
CC
     administered topically or as part of a dietary supplement, and where the
CC
     immune response is specific or non specific, an interferon response or an
CC
     antibody response; modulating blood cell proliferation by contacting
CC
    blood cells with a blood cell regulator, where the blood cells are
    present in a cell culture or an organism, are mammalian or human, and
CC
CC
    where the blood cells are increased in number or differentiated; and a
CC
    method for modulating blood cell proliferation in a patent. A claimed
CC
     cytokine-inducing composition comprises a pharmaceutical carrier and an
CC
     active agent such as the present peptide. Cytokines induced by this
CC
    peptide in human leucocyte cultures include interferon-gamma, tumour
CC
    necrosis factor-alpha, interleukin-4, interleukin-6, interleukin-10 and
     interleukin-12. It was one of the best overall inducers in almost all
CC
CC
     cytokine and blood cell proliferation experiments conducted
XX
SQ
     Sequence 7 AA;
  Query Match
                          100.0%; Score 42; DB 5; Length 7;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+06;
                                0; Mismatches
 Matches
             7; Conservative
                                                 0; Indels 0; Gaps
                                                                             0;
            1 MOPPPLP 7
Qу
              111111
Db
            1 MQPPPLP 7
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AAE20228
ID
     AAE20228 standard; peptide; 7 AA.
XX
AC
    AAE20228;
XX
DT
    18-JUN-2002 (first entry)
XX
DE
     Colostrinin constituent peptide #1.
XX
KW
     Blood cell regulator; colostrinin; constituent peptide; oxidative stress;
KW
     therapy; oxidative damage; skin; aging; wound healing; cell replacement;
KW
     tissue; organ; cosmetic procedure; repair; regeneration; preservation;
KW
     transplantation; implantation; dermatological; vulnerary.
XX
OS
     Unidentified.
XX
FH
     Key
                     Location/Qualifiers
FT
    Modified-site
FT
                     /note= "Optionally C-terminal amide"
XX
PN
    WO200213850-A1.
XX
PD
    21-FEB-2002.
XX
PF
     17-AUG-2000; 2000WO-US022776.
XX
PR
     17-AUG-2000; 2000WO-US022776.
XX
PΑ
     (TEXA ) UNIV TEXAS SYSTEM.
XX
ΡI
     Stanton GJ, Hughes TK, Boldogh I;
XX
DR
    WPI; 2002-269151/31.
XX
PT
    Composition useful for the modulation of blood cell proliferation in a
PT
     patient comprises a blood cell regulator selected from colostrinin, its
PT
     constituent peptide and/or analog.
XX
PS
    Claim 6; Page 25; 51pp; English.
XX
CC
     The invention relates to a composition which comprises a blood cell
CC
     regulator selected from colostrinin, its constituent peptide and/or
CC
     analogue. The invention is used for modulating the oxidative stress level
CC
     in a cell e.g. mammalian or human cell present in a cell culture, tissue,
CC
     organ, or organism; or for treating oxidative damage to the skin of a
CC
    patient e.g. animal or human; to modulate oxidative stress during/ after
CC
     a premature birth or normal birth, preventing/delaying aging in a
CC
    patient, enhancing wound healing, and the reduction of side effects of
CC
     cosmetic procedures. The method changes the level of an oxidising species
CC
     in the cell, such as decreases or prevents increase in the level of
CC
     damage to a biomolecule of the patient selected from DNA, protein and/or
CC
     lipid, compared to the same conditions when the oxidative stress
CC
     regulator is not present. The modulation of oxidative stress results in
```

enhanced repair, regeneration, and replacement of cells, tissues and

organs (e.g. kidney, liver, pancreas, skin, and the other internal and

external organs), as well as enhanced preservation of such organs for transplantation, implantation, or scientific research. The present

CC

CC

CC

CC

```
CC
     sequence is a colostrinin constituent peptide
XX
SQ
     Sequence 7 AA;
  Query Match
                          100.0%; Score 42; DB 5; Length 7;
                          100.0%; Pred. No. 1.4e+06;
  Best Local Similarity
                                0; Mismatches
  Matches
             7; Conservative
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
            1 MQPPPLP 7
Qу
              Db
            1 MQPPPLP 7
RESULT 8
AAB59354
     AAB59354 standard; peptide; 8 AA.
ID
XX
     AAB59354;
AC
XX
DT
     21-MAR-2001 (first entry)
XX
DE
     Ewe colostrinin peptide fragment derived sequence #14.
XX
KW
     Sheep; colostrinin; proline rich polypeptide; colostrum; immune disorder;
KW
     central nervous system disorder; dietary supplement; beta-amyloid plaque.
XX
os
     Ovis sp.
XX
PN
     WO200075173-A2.
XX
PD
     14-DEC-2000.
XX
PF
     02-JUN-2000; 2000WO-GB002128.
XX
PR
     02-JUN-1999;
                    99GB-00012852.
XX
PA
     (REGE-) REGEN THERAPEUTICS PLC.
XX
ΡI
     Georgiades JA;
XX
DR
     WPI; 2001-071058/08.
XX
PT
     Peptides having an N-terminal amino acid sequence isolated from
PT
     colostrinin for treating e.g. disorders of the central nervous system and
PT
     immune system, viral and bacterial infections, and diseases characterized
PT
     by amyloid plaques.
XX
PS
     Claim 8; Page 27; 63pp; English.
XX
CC
     The present invention provides the sequences of a number of peptides
CC
     found in ewe's colostrinin. Colostrinin is the proline-rich polypeptide
CC
     fragment of colostrum. These peptides can be used in the treatment of
CC
     central nervous system disorders such as senile dementia, Parkinson's
CC
     disease, Alzheimer's disease, psychosis and neurosis, immune system
CC
     disorders such as bacterial and viral infections, to improve the
CC
     development of a child's immune system, as a dietary supplement, and to
CC
     promote the dissolution of beta-amyloid plaques
```

```
XX
SO
     Sequence 8 AA;
  Query Match
                          100.0%; Score 42; DB 4; Length 8;
                          100.0%; Pred. No. 1.4e+06;
  Best Local Similarity
                                0; Mismatches
             7; Conservative
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
            1 MQPPPLP 7
Qу
              Db
            2 MQPPPLP 8
RESULT 9
ADC36090
     ADC36090 standard; peptide; 12 AA.
XX
    ADC36090;
AC
XX
DT
     18-DEC-2003 (first entry)
XX
DE
     Chemokine binding peptide BKT-P4.
XX
KW
     peptidic chemokine modulator; antiinflammatory; antiallergic;
KW
     immunosuppressive; antidiabetic; antirheumatic; dermatological;
KW
     antiarthritic; antibacterial; antipsoriatic; antiseborrheic;
KW
     antiarteriosclerotic; hypotensive; neuroprotective; virucide; vasotropic;
KW
     cytostatic; inflammation; allergy; immune response; autoimmune reaction;
KW
     rheumatoid arthritis; systemic lupus erythematosus; multiple sclerosis;
KW
     allograft rejection; diabetes; sepsis; cancer; malignant cell growth;
KW
     acne; infection; arthritis; colitis; psoriasis; atherosclerosis;
KW
     hypertension; reperfusion ischaemia.
XX
OS
     Synthetic.
XX
PN
     W02003072599-A2.
XX
PD
     04-SEP-2003.
XX
PF
     27-FEB-2003; 2003WO-IL000155.
XX
PR
     28-FEB-2002; 2002US-0359995P.
XX
PA
     (BIOK-) BIOKINE THERAPEUTICS LTD.
XX
ΡI
     Peled A, Eizenberg O, Vaizel-Ohayon D;
XX
DR
     WPI; 2003-671869/63.
XX
PT
     New peptidic chemokine modulator, useful for preparing a composition for
PT
     treating a disease modulated through and/or caused by binding of a
PT
     chemokine to a chemokine receptor, e.g., inflammation, diabetes, sepsis
PT
     or cancer.
XX
PS
     Example 1; Page 28; 43pp; English.
XX
CC
     The present invention describes a peptidic chemokine modulator (I) for
CC
     modulating a biological effect of a chemokine. (I) comprises a molecule
```

```
CC
     consisting of: (a) the amino acids His, Ser, Ala, Leu, Ile, Lys, Arg, Thr
     and Pro, and features at least 2 histidines spread along the molecule,
CC
CC
     where the molecule features an overall positive charge (family 1); or (b)
CC
     the amino acids His, Pro, Thr, Leu, Arg and Trp and features at least two
CC
     neighbouring histidines, where the molecule features an overall positive
CC
     charge (family 2). Also described: (1) a composition for treating a
CC
     condition involving abnormal cell migration in a subject; (2) a method
     for treating a disease modulated through and/or caused by binding of a
CC
CC
     chemokine to a chemokine receptor in a subject; (3) an antibody for
CC
     binding to a chemokine-binding receptor that recognises at least a
CC
     portion of a chemokine-binding receptor or the peptide; (4) a vaccine
CC
     formed with the antibody; and (5) a method for producing an antibody. (I)
CC
     has antiinflammatory, antiallergic, immunosuppressive, antidiabetic,
CC
     antirheumatic, dermatological, antiarthritic, antibacterial,
CC
     antipsoriatic, antiseborrheic, antiarteriosclerotic, hypotensive,
CC
     neuroprotective, virucide, vasotropic and cytostatic activities. The
CC
     peptidic chemokine modulator is useful for preparing a composition for
CC
     treating a disease modulated through and/or caused by binding of a
CC
     chemokine to a chemokine receptor, comprising inflammation (primary or
CC
     secondary), allergy, a non-optimal immune response, an autoimmune
CC
     reaction (including rheumatoid arthritis, systemic lupus erythematosus,
CC
    multiple sclerosis and others), allograft rejection, diabetes, sepsis,
CC
     cancer and any type of malignant cell growth, acne and chronic bacterial
CC
     and viral infections, arthritis, colitis, psoriasis, atherosclerosis,
CC
     hypertension or reperfusion ischaemia. The present sequence represents a
CC
     chemokine binding peptide, which is used in an example from the present
CC
     invention.
XX
SQ
     Sequence 12 AA;
                          85.7%; Score 36; DB 7; Length 12;
  Query Match
  Best Local Similarity
                          85.7%; Pred. No. 1e+02;
             6; Conservative
                                0; Mismatches
                                                   1; Indels
                                                                 0;
                                                                     Gaps
                                                                             0;
            1 MQPPPLP 7
Qу
              1111111
Db
            5 MQPPPRP 11
RESULT 10
AAE32821
ID
    AAE32821 standard; peptide; 12 AA.
XX
AC
    AAE32821;
XX
DT
     24-MAR-2003 (first entry)
XX
DΕ
     Human CEA exon #24 encoded peptide.
XX
KW
     Human; carcinoembryonic antigen; CEA; cell adhesion-mediated disease;
KW
     prognosis; cancer; tumour; gene therapy; exon.
XX
OS
     Homo sapiens.
XX
PN
     WO200290508-A2.
XX
PD
     14-NOV-2002.
```

```
XX
PF
     07-MAY-2002; 2002WO-US014457.
XX
PR
     07-MAY-2001; 2001US-0289179P.
PR
     29-AUG-2001; 2001US-0315736P.
XX
PA
     (ALPH-) ALPHAGENE INC.
XX
ΡI
     Stark KA,
                Weaver A, Hoffmann HM, Krauss R, Valenzuela DB;
ΡI
     Saini KS;
XX
     WPI; 2003-111965/10.
DR
XX
PT
     New carcinoembryonic antigen and polynucleotides encoding them, useful
     for treating and/or preventing cell adhesion-mediated disease (e.g.
PT
PT
     cancers, solid tumors, tumor metastasis or benign tumors) symptoms.
XX
PS
     Claim 17; Page 130; 143pp; English.
XX
CC
     The invention relates to novel human carcinoembryonic antigen (CEA)
CC
     polypeptides and polynucleotides encoding such polypeptides. CEA genes
CC
     are useful as diagnostic and prognostic markers of colon, stomach and
CC
     breast cancers. Polypeptides of the invention can be used to diagnose,
CC
     treat and/or prevent cell adhesion-mediated disease (e.g. cancers, solid
CC
     tumours, tumour metastasis or benign tumours) and to modulate cell-cell
CC
     or cell-matrix adhesion in mammalian tissues. The invention is useful in
CC
     gene therapy. The present sequence is human CEA exon encoded peptide.
CC
     Note: This sequence is stated to be encoded by SEQ ID NO: 52 (AAD50572).
CC
     However this does not appear to be the case
XX
SQ
     Sequence 12 AA;
  Ouerv Match
                          81.0%; Score 34; DB 6; Length 12;
  Best Local Similarity
                          85.7%; Pred. No. 1.8e+02;
  Matches
                                0; Mismatches
             6; Conservative
                                                  1; Indels
                                                                 0; Gaps
                                                                             0;
            1 MOPPPLP 7
Qу
              1 MQPPDLP 7
Db
RESULT 11
AAY85491
ID
     AAY85491 standard; peptide; 15 AA.
XX
AC
    AAY85491;
XX
DT
     03-JUL-2000 (first entry)
XX
DE
     Human ced-6 (hced-6) peptide epitope.
XX
KW
     ced-6; h1ced-6; h2ced-6; signal transduction pathway; phagocytosis;
KW
     cancer; autoimmune disease; neurodegenerative disease; stroke; AIDS;
KW
     Huntington's disease; myocardial infarction; cytostatic; neuroprotective;
KW
     cardiant; immunosuppressive; apoptosis modulator; epitope.
XX
OS
     Homo sapiens.
```

```
XX
PN
     WO9964586-A2.
XX
PD
     16-DEC-1999.
XX
PF
     10-JUN-1999;
                    99WO-EP004043.
XX
PR
     11-JUN-1998;
                    98GB-00012660.
PR
     24-SEP-1998;
                    98GB-00020816.
XX
PA
     (DEVG-) DEVGEN NV.
XX
PΙ
     Smits E, Van Criekinge WMR, Bogaert TAOE;
XX
DR
     WPI; 2000-246285/21.
XX
     Assays for determining the phagocytosis of apoptotic cells useful for
PT
PT
     identifying a compound which influences the phagocytic uptake of
PT
     apoptotic cells and treats cancers and neurodegenerative diseases.
XX
PS
     Claim 62; Page 56; 122pp; English.
XX
CC
     The invention relates to assays involving two human homologues of
CC
     Caenorhabditis elegans ced-6 (h1ced-6 and h2ced-6) for identifying
CC
     compounds which function as an inhibitor or an enhancer of a signal
CC
     transduction pathway. The assays are carried out by measuring
CC
     phagocytosis of apoptotic cells. The methods are useful for identifying
CC
     compounds which can act as apoptotic modulators which are useful for
CC
     treating diseases such as cancer, autoimmune diseases, neurodegenerative
CC
     diseases such as Huntington's disease, stroke, myocardial infarction and
CC
    AIDS. The assays are well adapted for medium and high throughput
CC
     screening using a multi-well plate format. Sequences AAY85489-91
CC
     represent peptide epitopes of hced-6, used for generating antibodies
XX
SO
     Sequence 15 AA;
                          81.0%; Score 34; DB 3; Length 15;
  Query Match
                          83.3%; Pred. No. 2.2e+02;
  Best Local Similarity
  Matches
            5; Conservative
                                1; Mismatches
                                                0; Indels
                                                                 0; Gaps
                                                                             0;
Qу
           2 QPPPLP 7
              1111:1
Dh
            6 QPPPVP 11
RESULT 12
AAY85494
     AAY85494 standard; peptide; 16 AA.
XX
AC
    AAY85494;
XX
DT
     03-JUL-2000 (first entry)
XX
DE
     Human ced-6 (hced-6) peptide epitope.
XX
KW
     ced-6; h1ced-6; h2ced-6; signal transduction pathway; phagocytosis;
KW
     cancer; autoimmune disease; neurodegenerative disease; stroke; AIDS;
```

```
KW
     Huntington's disease; myocardial infarction; cytostatic; neuroprotective;
KW
     cardiant; immunosuppressive; apoptosis modulator; epitope.
XX
OS
     Homo sapiens.
XX
PN
    WO9964586-A2.
XX
PD
     16-DEC-1999.
XX
PF
    10-JUN-1999;
                    99WO-EP004043.
XX
                    98GB-00012660.
PR
    11-JUN-1998;
    24-SEP-1998;
                    98GB-00020816.
PR
XX
PA
     (DEVG-) DEVGEN NV.
XX
PΙ
     Smits E, Van Criekinge WMR, Bogaert TAOE;
XX
DR
    WPI; 2000-246285/21.
XX
PT
    Assays for determining the phagocytosis of apoptotic cells useful for
PΤ
     identifying a compound which influences the phagocytic uptake of
PТ
     apoptotic cells and treats cancers and neurodegenerative diseases.
XX
PS
     Example 6; Page 35; 122pp; English.
XX
CC
     The invention relates to assays involving two human homologues of
CC
    Caenorhabditis elegans ced-6 (h1ced-6 and h2ced-6) for identifying
CC
     compounds which function as an inhibitor or an enhancer of a signal
CC
     transduction pathway. The assays are carried out by measuring
CC
    phagocytosis of apoptotic cells. The methods are useful for identifying
CC
    compounds which can act as apoptotic modulators which are useful for
CC
    treating diseases such as cancer, autoimmune diseases, neurodegenerative
CC
    diseases such as Huntington's disease, stroke, myocardial infarction and
CC
    AIDS. The assays are well adapted for medium and high throughput
CC
     screening using a multi-well plate format. Sequences AAY85492-94
CC
     represent peptide epitopes of hced-6, used for generating polyclonal
CC
     antibodies
XX
     Sequence 16 AA;
SQ
  Query Match
                          81.0%; Score 34; DB 3; Length 16;
  Best Local Similarity
                          83.3%; Pred. No. 2.4e+02;
 Matches
            5; Conservative
                                 1; Mismatches 0; Indels
                                                                 0; Gaps
                                                                              0;
Qу
            2 QPPPLP 7
             1111:1
Db
            7 QPPPVP 12
RESULT 13
AAM46973
ID
    AAM46973 standard; peptide; 7 AA.
XX
AC
    AAM46973;
XX
DT
    25-OCT-2001 (first entry)
```

```
XX
     H11 binding site consensus conforming peptide (CCP) #3244.
DE
XX
KW
     Antigen-binding; tumour; diagnosis; stress protein-peptide complex; SPPC;
KW
     immunogenically cross-reactive; cancer; immunogenic cancer cell;
KW
     cytostatic; vaccine; tumour-specific immunogenic response inducer;
KW
     astrocytoma; fibrosarcoma; myxosarcoma; liposarcoma; oligodendroglioma;
KW
     ependymoma; medulloblastoma; primitive neural ectodermal tumour.
XX
OS
     Homo sapiens.
OS
     Synthetic.
XX
PN
     CA2290722-A1.
XX
PD
     08-JUN-2001.
XX
     08-DEC-1999;
PF
                    99CA-02290722.
XX
PR
     08-DEC-1999;
                    99CA-02290722.
XX
PA
     (NOVO-) NOVOPHARM BIOTECH INC.
XX
ΡI
     Kaplan HA, Maiti PK, Fast DG, Herman W, Dan MD,
                                                          Lewis KE;
ΡI
     Entwistle JM, Macdonald GC;
XX
DR
     WPI; 2001-425937/46.
XX
PT
     Composition useful for treating and diagnosing cancer, comprises stress
PT
     protein-peptide complexes associated with tumor, and isolated antigen-
PΤ
     binding fragments of an antibody that binds specifically to the complex.
XX
PS
     Example 4; Page 112; 154pp; English.
XX
CC
     The present invention describes a composition (I) comprising stress
CC
     protein-peptide complexes (SPPC) associated with tumours that is
CC
     specifically immunogenically cross-reactive with cell surface-associated
CC
     SPPCs specific to target cancer (TC). Also described is an isolated
CC
     antigen-binding fragment of an antibody that binds specifically to SPPCs
CC
     or a population of different SPPCs consisting of immunogenic cancer cell
CC
     surface-associated SPPC of TC. (I) has cytostatic activity and can be
CC
     used in vaccine production and as a tumour-specific immunogenic response
CC
     inducer. (I) is useful for treating 71 types of cancers or tumours in a
CC
     subject, such as astrocytoma, fibrosarcoma, myxosarcoma, liposarcoma,
CC
     oligodendroglioma, ependymoma, medulloblastoma, and primitive neural
CC
     ectodermal tumour (PNET). (I) is useful as cancer immunogen including
CC
     vaccines. (I) is useful for diagnostic and palliative use, for detecting
CC
     or imaging cancer cells, and to monitor the course of amelioration of
CC
     malignancy in an individual. AAM43707 to AAM47109 represent peptides
CC
     which are used in the exemplification of the present invention
XX
SQ
     Sequence 7 AA;
  Query Match
                          78.6%; Score 33; DB 4; Length 7;
  Best Local Similarity
                          83.3%; Pred. No. 1.4e+06;
  Matches
           5; Conservative 1; Mismatches 0; Indels
```

:|||| Db 2 RPPPLP 7

```
RESULT 14
AAW06853
     AAW06853 standard; peptide; 10 AA.
XX
AC
     AAW06853;
XX
DT
     16-FEB-1997 (first entry)
XX
     Peptide binding the Crk-SH3 domain, used to treat cancer.
DE
XX
KW
     Peptide; binding; inhibition; binding domain; Crk-SH3; cancer; treatment;
     diagnosis; antibody; signal transduction; disease; disorder;
KW
KW
     intracellular signalling protein.
XX
os
     Synthetic.
XX
PN
     WO9621011-A2.
XX
PD
     11-JUL-1996.
XX
PF
     28-DEC-1995;
                    95WO-US016979.
XX
PR
     30-DEC-1994;
                    94US-00367070.
XX
PA
     (UYRQ ) UNIV ROCKEFELLER.
XX
PΙ
                  Knudsen BS, Feller SM, Kuriyan J, Wu X,
     Hanafusa H,
     Cowburn D:
ΡI
XX
DR
     WPI: 1996-333986/33.
XX
PT
     New peptide(s) which bind the Crk-SH3 domain - used to develop prods. for
PT
     the diagnosis and treatment of defects in intracellular signal
PT
     transduction, partic. in cancer.
XX
PS
     Claim 3; Page 92; 120pp; English.
XX
CC
     New peptides or proteins which comprise these peptides, bind to the Crk-
CC
     SH3 domain and competitively inhibit the binding of intracellular
CC
     signalling proteins. They can be used in the treatment of a disease or
CC
     disorder associated with a defect in intracellular signal transduction,
CC
     particularly cancer. They can also be used to diagnose such diseases and
CC
     disorders. Antibodies raised against these proteins can be used for the
CC
     same purposes. The peptides are derived from the Crk-SH3 binding domains
CC
     of intracellular signalling proteins. Peptides related to the invention
CC
     are described in AAW03149-63 and AAW06842-W06866
XX
SQ
     Sequence 10 AA;
                          78.6%; Score 33; DB 2; Length 10;
  Query Match
  Best Local Similarity
                          83.3%; Pred. No. 2.1e+02;
  Matches
             5; Conservative
                                 1; Mismatches
                                                                              0;
                                                  0; Indels
                                                                  0; Gaps
```

```
2 QPPPLP 7
Qу
              : | | | | |
            1 KPPPLP 6
Db
RESULT 15
AAB21127
     AAB21127 standard; peptide; 11 AA.
XX
AC
     AAB21127;
XX
DT
     19-JAN-2001 (first entry)
XX
DE
     Src homology 3 domain binding peptide #4.
XX
KW
     Src homology domain 3; SH3; protein-protein interaction; cancer;
KW
     signal transduction inhibition; immune suppression-associated disease.
XX
os
     Synthetic.
XX
PN
     WO200047607-A1.
XX
PD
     17-AUG-2000.
XX
PF
     12-FEB-2000; 2000WO-KR000107.
XX
PR
     12-FEB-1999;
                    99AU-00008643.
PR
     02-JUN-1999;
                    99KR-00020282.
XX
PA
     (YOON/) YOON J H.
PΑ
     (HANY/) HAN Y T.
XX
PΙ
     Yoon JH, Han YT, Lee KY;
XX
DR
     WPI; 2000-533010/48.
XX.
PT
     Synthetic peptides useful for treating cancers and immunosuppressive
PT
     disorders by disrupting interactions of the SH (Src homology) 2 and SH3
PT
     motifs of Src family kinase proteins.
XX
PS
     Claim 3; Page 33; 40pp; English.
XX
CC
     The present sequence is a synthetic peptide which has a high affinity for
CC
     the src homology 3 (SH3) domain of protein kinases. Protein kinases are
CC
     involved in signal transduction pathways, and this peptide can be used to
CC
     inhibit these, by disrupting protein-protein interactions, in the
CC
     treatment of cancer, particularly hepatocellular carcinoma, cervical
CC
     cancer, colon adenocarcinoma and fibrosarcoma, and immune suppression-
CC
     associated diseases
XX
SQ
     Sequence 11 AA;
  Query Match
                          78.6%;
                                  Score 33; DB 3; Length 11;
                          83.3%;
  Best Local Similarity
                                  Pred. No. 2.3e+02;
  Matches
             5; Conservative
                                 1; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
```

:||||| Db 3 RPPPLP 8

```
RESULT 16
AAW06845
ID
     AAW06845 standard; peptide; 12 AA.
XX
    AAW06845;
AC
XX
DT
     16-FEB-1997
                 (first entry)
ΧX
DE
     Peptide binding the Crk-SH3 domain, used to treat cancer.
XX
KW
     Peptide; binding; inhibition; binding domain; Crk-SH3; cancer; treatment;
KW
     diagnosis; antibody; signal transduction; disease; disorder;
KW
     intracellular signalling protein.
XX
OS
     Synthetic.
XX
PN
    WO9621011-A2.
XX
PD
     11-JUL-1996.
XX
PF
     28-DEC-1995;
                    95WO-US016979.
XX
PR
     30-DEC-1994;
                    94US-00367070.
XX
PA
     (UYRQ ) UNIV ROCKEFELLER.
XX
PΙ
                  Knudsen BS, Feller SM, Kuriyan J, Wu X, Zheng J;
     Hanafusa H,
     Cowburn D;
ΡI
XX
DR
     WPI; 1996-333986/33.
XX
PT
     New peptide(s) which bind the Crk-SH3 domain - used to develop prods. for
     the diagnosis and treatment of defects in intracellular signal
PT
PT
     transduction, partic. in cancer.
XX
PS
     Claim 3; Page 92; 120pp; English.
XX
CC
     New peptides or proteins which comprise these peptides, bind to the Crk-
CC
     SH3 domain and competitively inhibit the binding of intracellular
CC
     signalling proteins. They can be used in the treatment of a disease or
     disorder associated with a defect in intracellular signal transduction,
CC
CC
     particularly cancer. They can also be used to diagnose such diseases and
CC
     disorders. Antibodies raised against these proteins can be used for the
CC
     same purposes. The peptides are derived from the Crk-SH3 binding domains
CC
     of intracellular signalling proteins. Peptides related to the invention
CC
     are described in AAW03149-63 and AAW06842-W06866
XX
SQ
     Sequence 12 AA;
                          78.6%; Score 33; DB 2; Length 12;
  Query Match
  Best Local Similarity
                          83.3%; Pred. No. 2.5e+02;
  Matches
             5; Conservative
                                 1; Mismatches
                                                  0; Indels
                                                                              0;
                                                                  0; Gaps
```

```
2 QPPPLP 7
Qу
              :11111
            2 KPPPLP 7
Db
RESULT 17
AAW38072
     AAW38072 standard; peptide; 13 AA.
XX
AC
     AAW38072;
XX
DT
     23-APR-1998 (first entry)
XX
DE
     PPPPY motif containing peptide used to bind WW domains.
XX
KW
     Peptide recognition unit; WW domain; cell signalling; growth regulation;
KW
     cytoskeleton organisation; targeted drug screening; modulator;
KW
     WW domain interaction; YAP protein; dystrophin.
XX
OS
     Synthetic.
XX
PN
     WO9737223-A1.
XX
PD
     09-OCT-1997.
XX
PF
     03-APR-1997;
                    97WO-US005547.
XX
PR
     03-APR-1996;
                    96US-00630916.
XX
PΑ
     (CYTO-) CYTOGEN CORP.
PA
     (UYNC-) UNIV NORTH CAROLINA.
XX
PΙ
     Pirozzi G, Kay BK, Fowlkes DM;
XX
DR
     WPI; 1997-503234/46.
XX
PT
     Identifying cell signalling and growth regulatory polypeptides by
PΤ
     reaction with multivalent recognition complex - polypeptides are useful
PT
     in targetted drug selection.
XX
PS
     Disclosure; Fig 15B; 220pp; English.
XX
CC
     Peptides AAW38068-92 contain PPPPY-like motifs. The PPPY motif is found
CC
     in the proline rich regions of WBP-1 and WBP-2 proteins. Peptides
CC
     containing this residue have been shown to bind the YAP WW domain, but
CC
     not the WW domain from dystrophin or to a panel of SH3 domains. Peptides
CC
     AAW38068-92 were biotinylated and complexed with alkaline streptavidin,
CC
     and used in a cross affinity mapping experiment. They were tested for
CC
     their ability to bind to the 3 WW domains of WWP4 (AAW36797), which were
CC
     expressed as glutathione-S-transferase expression proteins. The present
CC
     peptide, derived from WBP-2A, does not bind to the WW domains of the
CC
     novel protein. The WW domain is a small functional domain. Its name is
CC
     derived from the observation that two tryptophan residues, one in the
CC
     amino terminal portion of the WW domain and one in the carboxyl terminal
```

portion, are conserved. Most proteins containing WW domains have a

organisation of the cytoskeleton. Polypeptides containing a WW domain are

function involving cell signalling and growth regulation or the

CC

CC

CC

```
CC
     identified by treating a multivalent recognition unit complex that has
     selective binding affinity for a WW domain, with many polypeptides and
CC
     identifying those with selective affinity for the complex. Proteins
CC
CC
     containing WW domains are used for targeted drug screening, i.e. to
     identify potential modulators of specific WW domain interactions
CC
XX
SQ
     Sequence 13 AA;
  Query Match
                          78.6%; Score 33; DB 2; Length 13;
  Best Local Similarity
                          71.4%; Pred. No. 2.7e+02;
  Matches
             5; Conservative
                                1; Mismatches
                                                  1; Indels
                                                                  0; Gaps
                                                                              0;
            1 MOPPPLP 7
Qу
              : | | | | |
Db
            2 VQPPPAP 8
RESULT 18
ADB49333
    ADB49333 standard; peptide; 13 AA.
ID
XX
AC
    ADB49333;
XX
DT
     04-DEC-2003
                 (first entry)
XX
DE
     Biotinylated WW domain binding peptide #5.
XX
KW
     WW domain; drug candidate screening; drug discovery; drug modification;
KW
     drug refinement; immunogen; WW binding protein; WW domain.
XX
OS
     Unidentified.
XX
PN
    US2003077577-A1.
XX
PD
     24-APR-2003.
XX
PF
     28-JUN-2002; 2002US-00185050.
XX
PR
                    96US-00630916.
     03-APR-1996;
PR
     03-APR-1997;
                    97US-00826516.
XX
PA
     (PIRO/) PIROZZI G.
PA
     (KAYB/) KAY B K.
PA
     (FOWL/) FOWLKES D M.
XX
PΙ
     Pirozzi G, Kay BK, Fowlkes DM;
XX
DR
     WPI; 2003-635075/60.
XX
PT
     Novel purified polypeptide comprising WW domain, useful for drug
     discovery, modification and refinement, for discovering polypeptides
PT
PT
     involved in pharmacological activities, or as an immunogen to generate
PT
     antibodies.
XX
PS
     Example; Fig 15A; 133pp; English.
XX
CC
     The invention describes a purified polypeptide (I) comprising a WW domain
```

```
CC
     which has a sequence (S1) selected from 11 sequences fully defined in the
     specification, a sequence (S2) selected from 48 sequences fully defined
CC
CC
     in the specification or a sequence (S3) comprising 683, 906, 224 or 725
CC
     amino acids fully defined in the specification. (I) is useful for
CC
     screening a potential drug candidate, by allowing (I) to come into
CC
     contact with at least one recognition unit having a selective affinity
CC
     for the WW domain in (I), in the presence of an amount of a potential
CC
     drug candidate, such that (I) and the recognition unit are capable of
CC
     interacting when brought into contact with one another in the absence of
CC
     the drug candidate, and determining the effect, if any, of the presence
CC
     of the amount of the drug candidate on the interaction of (I) with the
CC
     recognition unit. (I) is useful for drug discovery, modification and
CC
     refinement, for discovering polypeptides involved in pharmacological
CC
     activities, or as an immunogen to generate antibodies. This is the amino
     acid sequence of a WW domain binding peptide.
CC
XX
SO
     Sequence 13 AA;
  Query Match
                          78.6%;
                                  Score 33; DB 7; Length 13;
                                  Pred. No. 2.7e+02;
  Best Local Similarity
                          71.4%;
             5; Conservative
                                 1; Mismatches
                                                   1; Indels
                                                                  0; Gaps
                                                                              0;
            1 MQPPPLP 7
Qу
              : | | | | |
Db
            2 VQPPPAP 8
RESULT 19
AAR60997
ID
     AAR60997 standard; peptide; 7 AA.
XX
AC
     AAR60997;
XX
DT
     25-MAR-2003
                  (revised)
DT
     14-APR-1995
                  (first entry)
XX
DE
     Fragment of the 3BP1 protein that binds to SH3 of Ab1 kinase.
XX
KW
     CD4; T cell; surface antigen; receptor; MHC class II antigen;
KW
     protein-tyrosine kinase; p56lck; TcR/CD3 complex; PI 3-kinase;
KW
     PI 4-kinase; lipid kinase; T cell receptor complex; 3BP1; SH3;
KW
     Abl kinase.
XX
os
     Synthetic.
XX
PN
     WO9418832-A1.
XX
PD
     01-SEP-1994.
XX
PF
     25-FEB-1994;
                    94WO-US001840.
XX
PR
                    93US-00023915.
     26-FEB-1993;
XX
     (DAND ) DANA FARBER CANCER INST INC.
PA
XX
PΙ
     Rudd CE, Kanteti P, Cantley L;
XX
```

```
DR
     WPI; 1994-293868/36.
XX
PT
     Method for inhibiting or reducing signal transduction - utilises peptide
PT
     or corresp. nucleic acid which decreases association of PI 3- or 4-
PT
     kinase with CD4/p56lck.
XX
PS
     Example; Page 32; 46pp; English.
XX
CC
     In order for certain T cells to make an optimal response to antigen, it
CC
     is necessary for the T cell surface antigen CD4 to couple to the protein-
CC
     tyrosine kinase p56lck. (CD4-p56lck is known to associate with and
CC
     functionally synergise with the TcR/CD3 complex.)CD4-p56lck complex in T
CC
     cells associates with two lipid kinases: PI 3-kinase and PI 4-kinase,
CC
     which suggests that these lipid kinases are also involved in
CC
     intracellular signalling via the T cell receptor complex. The interaction
CC
     of a lipid kinase, such as PI 3-kinase or PI 4- kinase, with CD4-p561ck,
CC
     may be blocked by administering a peptide. This peptide may be a fragment
CC
     of the cytoplasmic domain of CD4 (eg AAR60987-R60991), a fragment of
CC
     p56lck (eg AAR60992, AAR60993), a fragment of PI 3-kinase (eg AAR60994,
CC
     AAR60995), or a fragment of PI 4-kinase. Other proline-rich peptides that
CC
     bind to SH3 binding sequences can also be used, such as the fragment of
CC
     3BP1 protein that binds to the SH3 of the Ab1 kinase (AAR60997), or a
CC
     sequence found in the SOS protein (AAR60999). (Updated on 25-MAR-2003 to
CC
     correct PN field.)
XX
SO
     Sequence 7 AA;
                          76.2%; Score 32; DB 2; Length 7;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+06;
             5; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                              0;
            3 PPPLP 7
Qy
              \perp
Db
            1 PPPLP 5
RESULT 20
AAR91752
ID
     AAR91752 standard; peptide; 7 AA.
XX
AC
     AAR91752;
XX
DT
     14-AUG-1996 (first entry)
XX
DΕ
     Prolyl endopeptidase inhibitor peptide #7.
XX
KW
     Prolyl endopeptidase; PEP; inhibitory peptide; animal feed; therapy;
KW
     prevention; dementia; human.
XX
OS
     Synthetic.
XX
PN
     JP08059697-A.
XX
ΡD
     05-MAR-1996.
XX
PF
     09-MAR-1995;
                    95JP-00079661.
XX
```

```
PR
     15-JUN-1994;
                    94JP-00158031.
XX
PA
     (AGEN ) AGENCY OF IND SCI & TECHNOLOGY.
     (NIHA-) NIPPON HAM KK.
PA
XX
    WPI; 1996-184809/19.
DR
XX
PT
     Prolyl:endo:peptidase inhibitory peptide(s) - useful as additives for
PT
     food and animal feed and to treat and prevent dementia.
XX
PS
     Claim 1; Page 11; 11pp; Japanese.
XX
CC
    AAR91746-R91753 represent prolyl endopeptidase (PEP) inhibitory peptides.
CC
    These peptides are useful as PEP inhibitors in functional foods and in
CC
     animal feeds. They are used to prepare oral and parenteral pharmaceutical
CC
    preparations for the treatment and prevention of dementia of animals,
CC
     including humans. The advantage with using these peptides, is that they
CC
    are safe and easily absorbed
XX
SQ
     Sequence 7 AA;
  Query Match
                          76.2%; Score 32; DB 2; Length 7;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+06;
 Matches
           5; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
           3 PPPLP 7
Qу
              Db
           2 PPPLP 6
RESULT 21
AAM46827
    AAM46827 standard; peptide; 7 AA.
XX
AC
    AAM46827;
XX
DT
    25-OCT-2001 (first entry)
XX
DE
    H11 binding site consensus conforming peptide (CCP) #3098.
XX
KW
     Antigen-binding; tumour; diagnosis; stress protein-peptide complex; SPPC;
KW
     immunogenically cross-reactive; cancer; immunogenic cancer cell;
KW
     cytostatic; vaccine; tumour-specific immunogenic response inducer;
KW
     astrocytoma; fibrosarcoma; myxosarcoma; liposarcoma; oligodendroglioma;
KW
     ependymoma; medulloblastoma; primitive neural ectodermal tumour.
XX
os
     Homo sapiens.
os
     Synthetic.
XX
PN
     CA2290722-A1.
XX
PD
     08-JUN-2001.
XX
PF
                    99CA-02290722.
     08-DEC-1999;
XX
                    99CA-02290722.
PR
     08-DEC-1999;
XX
```

```
PA
     (NOVO-) NOVOPHARM BIOTECH INC.
XX
PΙ
     Kaplan HA, Maiti PK, Fast DG, Herman W, Dan MD, Lewis KE;
     Entwistle JM, Macdonald GC;
PΙ
XX
DR
     WPI; 2001-425937/46.
XX
РΤ
     Composition useful for treating and diagnosing cancer, comprises stress
PT
     protein-peptide complexes associated with tumor, and isolated antigen-
PΤ
     binding fragments of an antibody that binds specifically to the complex.
XX
PS
     Example 4; Page 112; 154pp; English.
XX
CC
     The present invention describes a composition (I) comprising stress
CC
     protein-peptide complexes (SPPC) associated with tumours that is
CC
     specifically immunogenically cross-reactive with cell surface-associated
     SPPCs specific to target cancer (TC). Also described is an isolated
CC
CC
     antigen-binding fragment of an antibody that binds specifically to SPPCs
CC
     or a population of different SPPCs consisting of immunogenic cancer cell
     surface-associated SPPC of TC. (I) has cytostatic activity and can be
CC
CC
     used in vaccine production and as a tumour-specific immunogenic response
CC
     inducer. (I) is useful for treating 71 types of cancers or tumours in a
CC
     subject, such as astrocytoma, fibrosarcoma, myxosarcoma, liposarcoma,
CC
     oligodendroglioma, ependymoma, medulloblastoma, and primitive neural
CC
     ectodermal tumour (PNET). (I) is useful as cancer immunogen including
CC
     vaccines. (I) is useful for diagnostic and palliative use, for detecting
CC
     or imaging cancer cells, and to monitor the course of amelioration of
     malignancy in an individual. AAM43707 to AAM47109 represent peptides
CC
CC
     which are used in the exemplification of the present invention
XX
SQ
     Sequence 7 AA;
  Query Match
                          76.2%; Score 32; DB 4; Length 7;
                          100.0%; Pred. No. 1.4e+06;
  Best Local Similarity
                                0; Mismatches
  Matches
            5; Conservative
                                                  0; Indels
                                                                 0; Gaps
            3 PPPLP 7
Qу
              ++++
Db
            3 PPPLP 7
RESULT 22
AAM46861
ID
     AAM46861 standard; peptide; 7 AA.
XX
AC
     AAM46861;
XX
DT
     25-OCT-2001 (first entry)
XX
DE
     H11 binding site consensus conforming peptide (CCP) #3132.
XX
KW
     Antigen-binding; tumour; diagnosis; stress protein-peptide complex; SPPC;
KW
     immunogenically cross-reactive; cancer; immunogenic cancer cell;
KW
     cytostatic; vaccine; tumour-specific immunogenic response inducer;
KW
     astrocytoma; fibrosarcoma; myxosarcoma; liposarcoma; oligodendroglioma;
KW
     ependymoma; medulloblastoma; primitive neural ectodermal tumour.
XX
```

```
os
     Homo sapiens.
     Synthetic.
OS
XX
     CA2290722-A1.
PN
XX
PD
     08-JUN-2001.
XX
PF
     08-DEC-1999;
                    99CA-02290722.
XX
PR
     08-DEC-1999;
                    99CA-02290722.
XX
PA
     (NOVO-) NOVOPHARM BIOTECH INC.
XX
PΙ
     Kaplan HA, Maiti PK, Fast DG, Herman W, Dan MD, Lewis KE;
PΙ
     Entwistle JM, Macdonald GC;
XX
DR
    WPI; 2001-425937/46.
XX
PT
     Composition useful for treating and diagnosing cancer, comprises stress
     protein-peptide complexes associated with tumor, and isolated antigen-
PT
     binding fragments of an antibody that binds specifically to the complex.
PT
XX
PS
     Example 4; Page 112; 154pp; English.
XX
CC
     The present invention describes a composition (I) comprising stress
CC
     protein-peptide complexes (SPPC) associated with tumours that is
     specifically immunogenically cross-reactive with cell surface-associated
CC
     SPPCs specific to target cancer (TC). Also described is an isolated
CC
     antigen-binding fragment of an antibody that binds specifically to SPPCs
CC
     or a population of different SPPCs consisting of immunogenic cancer cell
CC
CC
     surface-associated SPPC of TC. (I) has cytostatic activity and can be
CC
     used in vaccine production and as a tumour-specific immunogenic response
CC
     inducer. (I) is useful for treating 71 types of cancers or tumours in a
CC
     subject, such as astrocytoma, fibrosarcoma, myxosarcoma, liposarcoma,
     oligodendroglioma, ependymoma, medulloblastoma, and primitive neural
CC
CC
     ectodermal tumour (PNET). (I) is useful as cancer immunogen including
CC
     vaccines. (I) is useful for diagnostic and palliative use, for detecting
     or imaging cancer cells, and to monitor the course of amelioration of
CC
CC
     malignancy in an individual. AAM43707 to AAM47109 represent peptides
CC
     which are used in the exemplification of the present invention
XX
SQ
     Sequence 7 AA;
  Query Match
                          76.2%; Score 32; DB 4; Length 7;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+06;
                                                                              0;
  Matches
             5; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0;
                                                                     Gaps
            3 PPPLP 7
Qу
              11111
            3 PPPLP 7
Db
RESULT 23
AAM46876
ΙD
     AAM46876 standard; peptide; 7 AA.
XX
AC
     AAM46876;
```

```
XX
     25-OCT-2001 (first entry)
DT
XX
DE
     H11 binding site consensus conforming peptide (CCP) #3147.
XX
KW
     Antigen-binding; tumour; diagnosis; stress protein-peptide complex; SPPC;
KW
     immunogenically cross-reactive; cancer; immunogenic cancer cell;
KW
     cytostatic; vaccine; tumour-specific immunogenic response inducer;
KW
     astrocytoma; fibrosarcoma; myxosarcoma; liposarcoma; oligodendroglioma;
KW
     ependymoma; medulloblastoma; primitive neural ectodermal tumour.
XX
os
     Homo sapiens.
os
     Synthetic.
XX
PN
     CA2290722-A1.
XX
     08-JUN-2001.
PD
XX
PF
     08-DEC-1999;
                    99CA-02290722.
XX
PR
     08-DEC-1999;
                    99CA-02290722.
XX
PA
     (NOVO-) NOVOPHARM BIOTECH INC.
XX
PΙ
     Kaplan HA, Maiti PK, Fast DG,
                                      Herman W, Dan MD,
                                                          Lewis KE;
PΙ
     Entwistle JM, Macdonald GC;
XX
DR
     WPI; 2001-425937/46.
XX
PT
     Composition useful for treating and diagnosing cancer, comprises stress
PT
     protein-peptide complexes associated with tumor, and isolated antiqen-
PT
     binding fragments of an antibody that binds specifically to the complex.
XX
PS
     Example 4; Page 112; 154pp; English.
XX
CC
     The present invention describes a composition (I) comprising stress
CC
     protein-peptide complexes (SPPC) associated with tumours that is
CC
     specifically immunogenically cross-reactive with cell surface-associated
CC
     SPPCs specific to target cancer (TC). Also described is an isolated
CC
     antigen-binding fragment of an antibody that binds specifically to SPPCs
CC
     or a population of different SPPCs consisting of immunogenic cancer cell
CC
     surface-associated SPPC of TC. (I) has cytostatic activity and can be
CC
     used in vaccine production and as a tumour-specific immunogenic response
CC
     inducer. (I) is useful for treating 71 types of cancers or tumours in a
CC
     subject, such as astrocytoma, fibrosarcoma, myxosarcoma, liposarcoma,
CC
     oligodendroglioma, ependymoma, medulloblastoma, and primitive neural
CC
     ectodermal tumour (PNET). (I) is useful as cancer immunogen including
CC
     vaccines. (I) is useful for diagnostic and palliative use, for detecting
CC
     or imaging cancer cells, and to monitor the course of amelioration of
CC
     malignancy in an individual. AAM43707 to AAM47109 represent peptides
CC
     which are used in the exemplification of the present invention
XX
SQ
     Sequence 7 AA;
                          76.2%; Score 32; DB 4; Length 7;
  Query Match
                          100.0%; Pred. No. 1.4e+06;
  Best Local Similarity
  Matches
             5; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
```

```
3 PPPLP 7
Qу
             Db
            3 PPPLP 7
RESULT 24
AAM47027
ID
     AAM47027 standard; peptide; 7 AA.
XX
AC
     AAM47027;
XX
DT
     25-OCT-2001 (first entry)
XX
DE
     H11 binding site consensus conforming peptide (CCP) #3298.
XX
KW
     Antiqen-binding; tumour; diagnosis; stress protein-peptide complex; SPPC;
     immunogenically cross-reactive; cancer; immunogenic cancer cell;
KW
KW
     cytostatic; vaccine; tumour-specific immunogenic response inducer;
KW
     astrocytoma; fibrosarcoma; myxosarcoma; liposarcoma; oligodendroglioma;
ΚW
     ependymoma; medulloblastoma; primitive neural ectodermal tumour.
XX
os
     Homo sapiens.
OS
     Synthetic.
XX
PN
     CA2290722-A1.
XX
PD
     08-JUN-2001.
XX
ΡF
     08-DEC-1999;
                    99CA-02290722.
XX
     08-DEC-1999;
PR
                    99CA-02290722.
XX
PΑ
     (NOVO-) NOVOPHARM BIOTECH INC.
XX
PΙ
     Kaplan HA, Maiti PK, Fast DG, Herman W, Dan MD, Lewis KE;
PΙ
     Entwistle JM, Macdonald GC;
XX
DR
     WPI; 2001-425937/46.
XX
PT
     Composition useful for treating and diagnosing cancer, comprises stress
PT
     protein-peptide complexes associated with tumor, and isolated antigen-
PT
     binding fragments of an antibody that binds specifically to the complex.
XX
PS
     Example 4; Page 112; 154pp; English.
XX
CC
     The present invention describes a composition (I) comprising stress
CC
     protein-peptide complexes (SPPC) associated with tumours that is
CC
     specifically immunogenically cross-reactive with cell surface-associated
CC
     SPPCs specific to target cancer (TC). Also described is an isolated
CC
     antigen-binding fragment of an antibody that binds specifically to SPPCs
CC
     or a population of different SPPCs consisting of immunogenic cancer cell
     surface-associated SPPC of TC. (I) has cytostatic activity and can be
CC
     used in vaccine production and as a tumour-specific immunogenic response
CC
CC
     inducer. (I) is useful for treating 71 types of cancers or tumours in a
CC
     subject, such as astrocytoma, fibrosarcoma, myxosarcoma, liposarcoma,
```

oligodendroglioma, ependymoma, medulloblastoma, and primitive neural

CC

```
CC
     ectodermal tumour (PNET). (I) is useful as cancer immunogen including
CC
     vaccines. (I) is useful for diagnostic and palliative use, for detecting
CC
     or imaging cancer cells, and to monitor the course of amelioration of
CC
     malignancy in an individual. AAM43707 to AAM47109 represent peptides
CC
     which are used in the exemplification of the present invention
XX
SQ
     Sequence 7 AA;
  Query Match
                          76.2%; Score 32; DB 4; Length 7;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+06;
  Matches
             5; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                              0;
                                                                 0; Gaps
            3 PPPLP 7
QУ
              11111
Db
            3 PPPLP 7
RESULT 25
AAM46856
    AAM46856 standard; peptide; 7 AA.
ID
XX
AC
    AAM46856;
XX
DT
     25-OCT-2001
                  (first entry)
XX
DE
    Hll binding site consensus conforming peptide (CCP) #3127.
XX
KW
    Antigen-binding; tumour; diagnosis; stress protein-peptide complex; SPPC;
KW
     immunogenically cross-reactive; cancer; immunogenic cancer cell;
KW
     cytostatic; vaccine; tumour-specific immunogenic response inducer;
KW
     astrocytoma; fibrosarcoma; myxosarcoma; liposarcoma; oligodendroglioma;
KW
     ependymoma; medulloblastoma; primitive neural ectodermal tumour.
XX
OS
     Homo sapiens.
OS
     Synthetic.
XX
PN
     CA2290722-A1.
XX
PD
     08-JUN-2001.
XX
PF
     08-DEC-1999;
                    99CA-02290722.
XX
PR
     08-DEC-1999;
                    99CA-02290722.
XX
PA
     (NOVO-) NOVOPHARM BIOTECH INC.
XX
PΙ
     Kaplan HA, Maiti PK, Fast DG,
                                      Herman W, Dan MD, Lewis KE;
PΙ
     Entwistle JM, Macdonald GC;
XX
DR
    WPI; 2001-425937/46.
XX
PT
     Composition useful for treating and diagnosing cancer, comprises stress
PT
     protein-peptide complexes associated with tumor, and isolated antigen-
PT
     binding fragments of an antibody that binds specifically to the complex.
XX
PS
     Example 4; Page 112; 154pp; English.
XX
```

```
CC
     The present invention describes a composition (I) comprising stress
CC
     protein-peptide complexes (SPPC) associated with tumours that is
CC
     specifically immunogenically cross-reactive with cell surface-associated
CC
     SPPCs specific to target cancer (TC). Also described is an isolated
CC
     antigen-binding fragment of an antibody that binds specifically to SPPCs
     or a population of different SPPCs consisting of immunogenic cancer cell
CC
CC
     surface-associated SPPC of TC. (I) has cytostatic activity and can be
CC
     used in vaccine production and as a tumour-specific immunogenic response
     inducer. (I) is useful for treating 71 types of cancers or tumours in a
CC
CC
     subject, such as astrocytoma, fibrosarcoma, myxosarcoma, liposarcoma,
CC
     oligodendroglioma, ependymoma, medulloblastoma, and primitive neural
CC
     ectodermal tumour (PNET). (I) is useful as cancer immunogen including
     vaccines. (I) is useful for diagnostic and palliative use, for detecting
CC
     or imaging cancer cells, and to monitor the course of amelioration of
CC
CC
     malignancy in an individual. AAM43707 to AAM47109 represent peptides
    which are used in the exemplification of the present invention
CC
XX
SO
     Sequence 7 AA;
  Query Match
                          76.2%; Score 32; DB 4; Length 7;
                          100.0%; Pred. No. 1.4e+06;
  Best Local Similarity
             5; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            3 PPPLP 7
Qу
              11111
Db
            3 PPPLP 7
RESULT 26
AAM46871
ID
    AAM46871 standard; peptide; 7 AA.
XX
AC
    AAM46871;
XX
DT
    25-OCT-2001 (first entry)
XX
DE
    H11 binding site consensus conforming peptide (CCP) #3142.
XX
KW
     Antigen-binding; tumour; diagnosis; stress protein-peptide complex; SPPC;
KW
     immunogenically cross-reactive; cancer; immunogenic cancer cell;
KW
     cytostatic; vaccine; tumour-specific immunogenic response inducer;
KW
     astrocytoma; fibrosarcoma; myxosarcoma; liposarcoma; oligodendroglioma;
KW
     ependymoma; medulloblastoma; primitive neural ectodermal tumour.
XX
OS
     Homo sapiens.
os
     Synthetic.
XX
PN
     CA2290722-A1.
XX
PD
     08-JUN-2001.
XX
PF
     08-DEC-1999;
                    99CA-02290722.
XX
PR
                    99CA-02290722.
     08-DEC-1999;
XX
     (NOVO-) NOVOPHARM BIOTECH INC.
PA
XX
```

```
PΙ
     Kaplan HA, Maiti PK, Fast DG, Herman W, Dan MD, Lewis KE;
PΙ
     Entwistle JM, Macdonald GC;
XX
DR
     WPI; 2001-425937/46.
XX
PT
     Composition useful for treating and diagnosing cancer, comprises stress
PT
     protein-peptide complexes associated with tumor, and isolated antigen-
     binding fragments of an antibody that binds specifically to the complex.
PT
XX
PS
     Example 4; Page 112; 154pp; English.
XX
CC
     The present invention describes a composition (I) comprising stress
CC
     protein-peptide complexes (SPPC) associated with tumours that is
CC
     specifically immunogenically cross-reactive with cell surface-associated
CC
     SPPCs specific to target cancer (TC). Also described is an isolated
CC
     antigen-binding fragment of an antibody that binds specifically to SPPCs
CC
     or a population of different SPPCs consisting of immunogenic cancer cell
     surface-associated SPPC of TC. (I) has cytostatic activity and can be
CC
CC
     used in vaccine production and as a tumour-specific immunogenic response
CC
     inducer. (I) is useful for treating 71 types of cancers or tumours in a
CC
     subject, such as astrocytoma, fibrosarcoma, myxosarcoma, liposarcoma,
CC
     oligodendroglioma, ependymoma, medulloblastoma, and primitive neural
CC
     ectodermal tumour (PNET). (I) is useful as cancer immunogen including
CC
     vaccines. (I) is useful for diagnostic and palliative use, for detecting
CC
     or imaging cancer cells, and to monitor the course of amelioration of
CC
     malignancy in an individual. AAM43707 to AAM47109 represent peptides
CC
     which are used in the exemplification of the present invention
XX
SQ
     Sequence 7 AA;
                          76.2%; Score 32; DB 4; Length 7;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+06;
            5; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
            3 PPPLP 7
Qу
              11111
            3 PPPLP 7
Db
RESULT 27
AAM46851
ID
     AAM46851 standard; peptide; 7 AA.
XX
AC
     AAM46851;
XX
DT
     25-OCT-2001 (first entry)
XX
ĎΕ
     H11 binding site consensus conforming peptide (CCP) #3122.
XX
KW
     Antigen-binding; tumour; diagnosis; stress protein-peptide complex; SPPC;
KW
     immunogenically cross-reactive; cancer; immunogenic cancer cell;
KW
     cytostatic; vaccine; tumour-specific immunogenic response inducer;
KW
     astrocytoma; fibrosarcoma; myxosarcoma; liposarcoma; oligodendroglioma;
KW
     ependymoma; medulloblastoma; primitive neural ectodermal tumour.
XX
OS
     Homo sapiens.
     Synthetic.
OS
```

```
XX
     CA2290722-A1.
PN
XX
PD
     08-JUN-2001.
XX
PF
     08-DEC-1999;
                    99CA-02290722.
XX
                    99CA-02290722.
PR
     08-DEC-1999;
XX
PΑ
     (NOVO-) NOVOPHARM BIOTECH INC.
XX
PΙ
     Kaplan HA, Maiti PK, Fast DG, Herman W, Dan MD, Lewis KE;
PΙ
     Entwistle JM, Macdonald GC;
XX
DR
     WPI; 2001-425937/46.
XX
     Composition useful for treating and diagnosing cancer, comprises stress
PT
PΤ
     protein-peptide complexes associated with tumor, and isolated antigen-
PT
     binding fragments of an antibody that binds specifically to the complex.
XX
PS
     Example 4; Page 112; 154pp; English.
XX
CC
     The present invention describes a composition (I) comprising stress
CC
     protein-peptide complexes (SPPC) associated with tumours that is
CC
     specifically immunogenically cross-reactive with cell surface-associated
CC
     SPPCs specific to target cancer (TC). Also described is an isolated
CC
     antigen-binding fragment of an antibody that binds specifically to SPPCs
CC
     or a population of different SPPCs consisting of immunogenic cancer cell
CC
     surface-associated SPPC of TC. (I) has cytostatic activity and can be
CC
     used in vaccine production and as a tumour-specific immunogenic response
CC
     inducer. (I) is useful for treating 71 types of cancers or tumours in a
CC
     subject, such as astrocytoma, fibrosarcoma, myxosarcoma, liposarcoma,
CC
     oligodendroglioma, ependymoma, medulloblastoma, and primitive neural
CC
     ectodermal tumour (PNET). (I) is useful as cancer immunogen including
CC
     vaccines. (I) is useful for diagnostic and palliative use, for detecting
CC
     or imaging cancer cells, and to monitor the course of amelioration of
CC
     malignancy in an individual. AAM43707 to AAM47109 represent peptides
CC
     which are used in the exemplification of the present invention
XX
SO
     Sequence 7 AA;
  Query Match
                          76.2%; Score 32; DB 4; Length 7;
                          100.0%; Pred. No. 1.4e+06;
  Best Local Similarity
  Matches
             5; Conservative
                               0; Mismatches
                                                                 0; Gaps
                                                   0; Indels
                                                                              0;
            3 PPPLP 7
Qу
              +1111
Db
            3 PPPLP 7
RESULT 28
AAM46866
ΙD
     AAM46866 standard; peptide; 7 AA.
XX
AC
     AAM46866;
XX
DT
     25-OCT-2001 (first entry)
```

```
XX
DE:
     H11 binding site consensus conforming peptide (CCP) #3137.
XX
KW
     Antigen-binding; tumour; diagnosis; stress protein-peptide complex; SPPC;
KW
     immunogenically cross-reactive; cancer; immunogenic cancer cell;
KW
     cytostatic; vaccine; tumour-specific immunogenic response inducer;
KW
     astrocytoma; fibrosarcoma; myxosarcoma; liposarcoma; oligodendroglioma;
KW
     ependymoma; medulloblastoma; primitive neural ectodermal tumour.
XX
os
     Homo sapiens.
os
     Synthetic.
XX
PN
     CA2290722-A1.
XX
PD
     08-JUN-2001.
XX
PF
     08-DEC-1999;
                    99CA-02290722.
XX
PR
     08-DEC-1999;
                    99CA-02290722.
XX
PA
     (NOVO-) NOVOPHARM BIOTECH INC.
XX
PΙ
     Kaplan HA, Maiti PK, Fast DG,
                                      Herman W, Dan MD,
                                                          Lewis KE;
PΙ
     Entwistle JM, Macdonald GC;
XX
DR
    WPI; 2001-425937/46.
XX
PT
    Composition useful for treating and diagnosing cancer, comprises stress
PT
     protein-peptide complexes associated with tumor, and isolated antigen-
PT
    binding fragments of an antibody that binds specifically to the complex.
XX
     Example 4; Page 112; 154pp; English.
PS
XX
CC
    The present invention describes a composition (I) comprising stress
CC
    protein-peptide complexes (SPPC) associated with tumours that is
CC
     specifically immunogenically cross-reactive with cell surface-associated
CC
     SPPCs specific to target cancer (TC). Also described is an isolated
CC
     antigen-binding fragment of an antibody that binds specifically to SPPCs
CC
     or a population of different SPPCs consisting of immunogenic cancer cell
CC
     surface-associated SPPC of TC. (I) has cytostatic activity and can be
CC
     used in vaccine production and as a tumour-specific immunogenic response
     inducer. (I) is useful for treating 71 types of cancers or tumours in a
CC
CC
     subject, such as astrocytoma, fibrosarcoma, myxosarcoma, liposarcoma,
CC
     oligodendroglioma, ependymoma, medulloblastoma, and primitive neural
CC
     ectodermal tumour (PNET). (I) is useful as cancer immunogen including
CC
     vaccines. (I) is useful for diagnostic and palliative use, for detecting
CC
     or imaging cancer cells, and to monitor the course of amelioration of
CC
    malignancy in an individual. AAM43707 to AAM47109 represent peptides
CC
     which are used in the exemplification of the present invention
XX
SQ
     Sequence 7 AA;
                          76.2%; Score 32; DB 4; Length 7;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+06;
  Matches
             5; Conservative
                               0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
```

```
Db 3 PPPLP 7
```

```
RESULT 29
AAR71945
ΙD
     AAR71945 standard; peptide; 8 AA.
XX
AC
     AAR71945;
XX
DT
     25-MAR-2003
                 (revised)
DT
     17-OCT-1995 (first entry)
XX
DE
     Human 3BP1 peptide.
XX
KW
     Grb3-3; cancer; apoptosis; AIDS; gene therapy; 3BP1; SH3 domain.
XX
OS
     Synthetic.
XX
PN
     WO9507981-A1.
XX
PD
     23-MAR-1995.
XX
PF
     09-MAY-1994;
                    94WO-FR000542.
XX
PR
     15-SEP-1993;
                    93FR-00010971.
XX
PA
     (RHON ) RHONE POULENC RORER SA.
XX
PΙ
     Schweighoffer F, Tocque B;
XX
DR
     WPI; 1995-131349/17.
XX
PT
     New human Grb3-3 gene and vectors contg. it - useful in control of cell
PT
     death etc. partic. for treating cancer and AIDS.
XX
PS
     Example 2; Page 11; 31pp; French.
XX
CC
     The hSOS1 and 3BP1 peptides given in AAR71944-45 were used to demonstrate
     that the newly isolated human Grb3-3 protein was able to bind hSOS1, but
CC
     not to the 3BP1 peptide, which corresponds to the SH3 domain of Ab1 and
     Src. A Grb3-3G162R mutant was unable to bind the hSOS1 peptide. (Updated
CC
CC
     on 25-MAR-2003 to correct PN field.)
XX
SO
     Sequence 8 AA;
  Query Match
                          76.2%; Score 32; DB 2; Length 8;
  Best Local Similarity
                          100.0%; Pred. No. 1.4e+06;
  Matches
             5; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            3 PPPLP 7
Qу
              \pm 11111
Db
            1 PPPLP 5
```

RESULT 30 AAR77371

```
ID
     AAR77371 standard; peptide; 10 AA.
XX
AC
    AAR77371;
XX
DT
     17-JAN-1996 (first entry)
XX
DE
     SH3 binding domain 3BP-1.
XX
KW
     Carboxyamido-triazole resistance; CAI; CAIR-1; cancer; gene therapy;
     Src homology 3; SH3 binding domain; 3BP-1.
KW
XX
OS
     Homo sapiens.
XX
PN
     WO9525125-A1.
XX
PD
     21-SEP-1995.
XX
     14-MAR-1995;
                   95WO-US003610.
PF
XX
PR
     14-MAR-1994;
                   94US-00212190.
XX
PA
     (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
PΙ
     Kohn EC, Liotta LA, Kim YS;
XX
DR
     WPI; 1995-336944/43.
XX
PT
     DNA encoding CAI resistance proteins - used in gene therapy, and for
PT
     detecting CAI resistance in biological samples.
XX
PS
     Example 4; Page 40; 56pp; English.
XX
CC
     CAIR-1 protein (AAR77365), responsible for CAI resistance in A2058 human
CC
     melanoma cells, contains a unique proline-rich sequence which fulfills
     the consensus definition for Src homology 3 (SH3) binding proteins
CC
     (AAR77366). 4 Unique versions (AAR77367-70) are present that show
CC
     homology to the known SH3 binding domains: 3BP-1, and the p85-alpha-1 and
CC
     -2 subunits of phosphatidylinositol 3' kinase (AAR77371-73)
CC
XX
SQ
     Sequence 10 AA;
  Query Match
                          76.2%; Score 32; DB 2; Length 10;
                         100.0%; Pred. No. 2.9e+02;
  Best Local Similarity
  Matches
             5; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
            3 PPPLP 7
Qу
             Db
            5 PPPLP 9
RESULT 31
AAW06861
ID
     AAW06861 standard; peptide; 10 AA.
XX
AC
     AAW06861;
XX
DT
     16-FEB-1997 (first entry)
```

```
XX
DE
     Peptide binding the Crk-SH3 domain, used to treat cancer.
XX
KW
     Peptide; binding; inhibition; binding domain; Crk-SH3; cancer; treatment;
KW
     diagnosis; antibody; signal transduction; disease; disorder;
KW
     intracellular signalling protein.
XX
os
     Synthetic.
XX
PN
     WO9621011-A2.
XX
PD
     11-JUL-1996.
XX
PF
     28-DEC-1995;
                    95WO-US016979.
XX
PR
                    94US-00367070.
     30-DEC-1994;
XX
     (UYRQ ) UNIV ROCKEFELLER.
PA
XX
PΙ
     Hanafusa H,
                  Knudsen BS, Feller SM, Kuriyan J, Wu X, Zheng J;
PΙ
     Cowburn D;
XX
DR
    WPI; 1996-333986/33.
XX
PT
     New peptide(s) which bind the Crk-SH3 domain - used to develop prods. for
PT
     the diagnosis and treatment of defects in intracellular signal
PT
     transduction, partic. in cancer.
XX
PS
     Claim 3; Page 93; 120pp; English.
XX
CC
    New peptides or proteins which comprise these peptides, bind to the Crk-
CC
     SH3 domain and competitively inhibit the binding of intracellular
CC
     signalling proteins. They can be used in the treatment of a disease or
CC
    disorder associated with a defect in intracellular signal transduction,
CC
     particularly cancer. They can also be used to diagnose such diseases and
CC
     disorders. Antibodies raised against these proteins can be used for the
CC
     same purposes. The peptides are derived from the Crk-SH3 binding domains
CC
     of intracellular signalling proteins. Peptides related to the invention
     are described in AAW03149-63 and AAW06842-W06866
CC
XX
SO
     Sequence 10 AA;
  Query Match
                          76.2%; Score 32; DB 2; Length 10;
  Best Local Similarity
                          100.0%; Pred. No. 2.9e+02;
             5; Conservative
                                 0; Mismatches
                                                                              0;
                                                   0; Indels
                                                                 0; Gaps
            3 PPPLP 7
Qу
             11111
Db
            2 PPPLP 6
RESULT 32
AAW38097
ΙD
     AAW38097 standard; peptide; 10 AA.
XX
AC
     AAW38097;
XX
```

```
DT
     23-APR-1998 (first entry)
XX
DE
     PPPPY motif containing peptide used to bind WW domains.
XX
KW
     Peptide recognition unit; WW domain; cell signalling; growth regulation;
KW
     cytoskeleton organisation; targeted drug screening; modulator;
KW
     WW domain interaction; YAP protein; dystrophin.
XX
os
     Synthetic.
XX
PN
     WO9737223-A1.
XX
PD
     09-OCT-1997.
XX
PF
     03-APR-1997;
                    97WO-US005547.
XX
PR
     03-APR-1996;
                    96US-00630916.
XX
PΑ
     (CYTO-) CYTOGEN CORP.
PΑ
     (UYNC-) UNIV NORTH CAROLINA.
XX
PΙ
     Pirozzi G, Kay BK, Fowlkes DM;
XX
     WPI; 1997-503234/46.
DR
XX
PT
     Identifying cell signalling and growth regulatory polypeptides by
PT
     reaction with multivalent recognition complex - polypeptides are useful
PT
     in targetted drug selection.
XX
PS
     Disclosure; Fig 15D; 220pp; English.
XX
     Peptides AAW38068-92 contain PPPPY-like motifs. The PPPY motif is found
CC
CC
     in the proline rich regions of WBP-1 and WBP-2 proteins. Peptides
CC
     containing this residue have been shown to bind the YAP WW domain, but
CC
     not the WW domain from dystrophin or to a panel of SH3 domains. Peptides
CC
     AAW38068-92 were biotinylated and complexed with alkaline streptavidin,
CC
     and used in a cross affinity mapping experiment. They were tested for
CC
     their ability to bind to the 3 WW domains of WWP4 (AAW36797), which were
CC
     expressed as glutathione-S-transferase expression proteins. The present
CC
     peptide, derived from formin, does not bind to the WW domains of the
CC
     novel protein. The WW domain is a small functional domain. Its name is
CC
     derived from the observation that two tryptophan residues, 1 in the amino
CC
     terminal portion of the WW domain and 1 in the carboxyl terminal portion,
CC
     are conserved. Most proteins containing WW domains have a function
CC
     involving cell signalling and growth regulation or the organisation of
CC
     the cytoskeleton. Polypeptides containing a WW domain are identified by
CC
     treating a multivalent recognition unit complex that has selective
CC
     binding affinity for a WW domain, with many polypeptides and identifying
CC
     those with selective affinity for the complex. Proteins containing WW
CC
     domains are used for targeted drug screening, i.e. to identify potential
CC
     modulators of specific WW domain interactions
XX
SQ
     Sequence 10 AA;
                          76.2%; Score 32; DB 2; Length 10;
  Query Match
                          100.0%; Pred. No. 2.9e+02;
  Best Local Similarity
                                                                 0; Gaps
  Matches
             5; Conservative 0; Mismatches 0; Indels
                                                                              0;
```

```
3 PPPLP 7
Qу
             11111
            5 PPPLP 9
Db
RESULT 33
AAW38074
ID
    AAW38074 standard; peptide; 10 AA.
XX
AC
    AAW38074;
XX
DT
     23-APR-1998 (first entry)
XX
DE
     PPPPY motif containing peptide used to bind WW domains.
XX
KW
     Peptide recognition unit; WW domain; cell signalling; growth regulation;
KW
     cytoskeleton organisation; targeted drug screening; modulator;
    WW domain interaction; YAP protein; dystrophin.
KW
XX
os
     Synthetic.
XX
PN
    WO9737223-A1.
XX
PD
     09-OCT-1997.
XX
PF
                    97WO-US005547.
     03-APR-1997;
XX
PR
     03-APR-1996;
                    96US-00630916.
XX
PA
     (CYTO-) CYTOGEN CORP.
     (UYNC-) UNIV NORTH CAROLINA.
PA
XX
PΙ
     Pirozzi G, Kay BK, Fowlkes DM;
XX
DR
    WPI; 1997-503234/46.
XX
PΤ
     Identifying cell signalling and growth regulatory polypeptides by
PT
     reaction with multivalent recognition complex - polypeptides are useful
PT
     in targetted drug selection.
XX
PS
     Disclosure; Fig 15B; 220pp; English.
XX
CC
     Peptides AAW38068-92 contain PPPPY-like motifs. The PPPY motif is found
     in the proline rich regions of WBP-1 and WBP-2 proteins. Peptides
CC
CC
     containing this residue have been shown to bind the YAP WW domain, but
CC
     not the WW domain from dystrophin or to a panel of SH3 domains. Peptides
CC
     AAW38068-92 were biotinylated and complexed with alkaline streptavidin,
     and used in a cross affinity mapping experiment. They were tested for
CC
CC
     their ability to bind to the 3 WW domains of WWP4 (AAW36797), which were
CC
     expressed as glutathione-S-transferase expression proteins. The present
     peptide, derived from formin, does not bind to the WW domains of the
CC
     novel protein. The WW domain is a small functional domain. Its name is
CC
     derived from the observation that two tryptophan residues, one in the
CC
CC
     amino terminal portion of the WW domain and one in the carboxyl terminal
```

portion, are conserved. Most proteins containing WW domains have a

function involving cell signalling and growth regulation or the

```
CC
     identified by treating a multivalent recognition unit complex that has
CC
     selective binding affinity for a WW domain, with many polypeptides and
CC
     identifying those with selective affinity for the complex. Proteins
CC
     containing WW domains are used for targeted drug screening, i.e. to
CC
     identify potential modulators of specific WW domain interactions
XX
SQ
     Sequence 10 AA;
  Query Match
                          76.2%; Score 32; DB 2; Length 10;
  Best Local Similarity
                         100.0%; Pred. No. 2.9e+02;
  Matches
           5; Conservative
                              0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
           3 PPPLP 7
Qу
             Db
           5 PPPLP 9
RESULT 34
AAB86131
    AAB86131 standard; protein; 10 AA.
XX
AC
    AAB86131;
XX
DT
     30-JUL-2001
                (first entry)
XX
DE
     Proline-rich peptide.
XX
KW
    Transport system; gene therapy; infection; tumor LLO;
KW
    human immune deficiency virus; hemophilia; muscular dystrophy; capsid;
KW
     cystic fibrosis; virus-like particle; cell targeting; listeriolysin O.
XX
OS
    Unidentified.
XX
PN
    WO200132851-A2.
XX
PD
    10-MAY-2001.
XX
PF
     03-NOV-2000; 2000WO-EP010876.
XX
PR
     03-NOV-1999;
                   99DE-01052957.
XX
PA
     (ACGT-) ACGT PROGENOMICS AG.
XX
PΙ
     Boehm G, Rudolph R, Schmidt U, Esser D;
XX
DR
    WPI; 2001-316433/33.
XX
PT
     Transport system for compounds, useful e.g. in gene therapy, comprises
PT
     mosaic-like assembly of different protein subunits able to encapsulate
PT
     compounds.
XX
PS
     Example 11; Page 35; 106pp; German.
XX
CC
     This invention describes a novel transport system (A) for molecular
CC
     substances (I) containing recombinantly prepared subunits (SU) based on
CC
     amino acids (aa) comprising: (i) at least two modified SU with one
```

organisation of the cytoskeleton. Polypeptides containing a WW domain are

```
CC
     difference; and/or (ii) one or more modified SU with at least two
CC
     differences; and (iii) (optionally) unmodified SU. The various SU are
CC
     combined in a mosaic fashion to form (A) in which (I) can be
CC
     encapsulated. (A) Are used to deliver (I) specifically to cells,
CC
     particularly DNA to eukaryotic cells for gene therapy, e.g. of infections
     by human immune deficiency virus, tumors and a wide range of inherited
CC
CC
     diseases such as hemophilia, muscular dystrophy or cystic fibrosis.
CC
     Capsids or other virus-like particles can be assembled, simply and in
CC
     modular fashion, in vitro, allowing control over stoichiometric
CC
     composition. SU can be modified to impart a wide variety of selected
CC
     properties, e.g. cell targeting, improved cellular uptake and reduced
CC
     immunogenicity. (A) do not require extensive testing to ensure that they
CC
     are safe (contrast replication-deficient viruses), also SU can be
CC
     prepared in very pure form and are easily labeled fluorescently (for
CC
     quality control or localization). This sequence represents a proline-rich
CC
     peptide used in the construction of a a Listeria monocytogenes
CC
     listeriolysin LLO variant which is used to illustrate the method of the
CC
     invention
XX
SQ
     Sequence 10 AA;
  Query Match
                          76.2%; Score 32; DB 4; Length 10;
  Best Local Similarity
                          100.0%; Pred. No. 2.9e+02;
  Matches
           5; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
           3 PPPLP 7
Qу
              Db
            6 PPPLP 10
RESULT 35
AAB86149
     AAB86149 standard; peptide; 10 AA.
XX
AC
    AAB86149;
XX
DT
     31-JUL-2001 (first entry)
XX
DE
     Proline-rich peptide fragment.
XX
KW
     Packaging; protein shell; transport system; gene therapy; GFP-PPLP;
KW
     icosahedral virus capsid; enhanced green fluorescent protein; eGFP;
KW
     fusion construct; proline-rich.
XX
os
     Unidentified.
XX
PN
     W0200132852-A2.
XX
PD
     10-MAY-2001.
XX
     03-NOV-2000; 2000WO-EP010878.
PF
XX
PR
     03-NOV-1999;
                    99DE-01052982.
XX
PA
     (ACGT-) ACGT PROGENOMICS AG.
XX
PΙ
     Boehm G, Esser D, Schmidt U;
```

```
XX
DR
     WPI; 2001-316434/33.
XX
PT
     Packaging compounds in protein shells, useful e.g. in gene therapy, by
PT
     binding a compound to immobilized shell fragment, then releasing it from
PT
     the matrix and assembly into shells.
XX
PS
     Example 6; Page 26; 62pp; German.
XX
CC
     This invention describes a novel method for packaging molecular
CC
     substances (I) in protein shells which comprises binding a shell fragment
CC
     (II), via a first region, to a matrix (M), then treating bound (II) with
CC
     (I) so that this binds through a second region of (II). The (I)-(II)
CC
     product, or part of it, is separated from M and assembled, with other
CC
     (II), to form the shells. The separation and assembly steps may be
CC
     performed in either sequence. Packaging of (I) is used to prepare
CC
     transport systems for genes or active agents, particularly in gene
CC
     therapy. The process provides very efficient packaging of (I), including
CC
     compounds that aggregate in solution or have other unfavorable
CC
     properties. Even very long DNA can be packaged, when combined with a
CC
     condensing agent, and the method is applicable to any sort of protein
CC
     shell, not just icosahedral virus capsids. The integrated (II) can be
CC
     screened for optimization of its packaging properties. e.g. maximum size
CC
     of (I) that can be accommodated. This sequence represents a proline-rich
CC
     peptide fragment used in the production of the fusion construct
CC
     comprising the Aequorea victoria enhanced green fluorescent protein
CC
     (eGFP) and a proline rich region which is used to illustrate the method
CC
     of the invention
XX
SO
     Sequence 10 AA;
  Query Match
                          76.2%; Score 32; DB 4; Length 10;
                          100.0%; Pred. No. 2.9e+02;
  Best Local Similarity
  Matches
                                0; Mismatches
                                                                             0;
             5; Conservative
                                                  0; Indels
                                                                 0; Gaps
            3 PPPLP 7
Qу
              11111
            6 PPPLP 10
Db
RESULT 36
AAB70933
     AAB70933 standard; protein; 10 AA.
XX
AC
     AAB70933;
XX
DT
     30-JUL-2001 (first entry)
XX
DΕ
     Polyoma virus VP1 variant PyVP1-WW150 proline-rich fragment.
XX
KW
     VP1; coat protein; WW domain; proline-rich; immobilization; biosensor;
KW
     bioreactor; protein packaging; PyVP1-WW150.
XX
OS
     Polyoma virus.
XX
PN
     WO200132684-A2.
XX
```

```
PD
     10-MAY-2001.
XX
     03-NOV-2000; 2000WO-EP010873.
PF
XX
PR
     03-NOV-1999;
                    99DE-01052956.
XX
PA
     (ACGT-) ACGT PROGENOMICS AG.
XX
PΙ
     Boehm G, Schmidt U, Parthier C, Guenther C;
XX
DR
     WPI; 2001-343471/36.
XX
PT
     Linking two or more molecules through adapter sequences, useful e.g. for
PΤ
     purifying recombinant proteins, by exploiting interaction between WW
PT
     domain and proline-rich sequence.
XX
PS
     Example 5; Page 26; 100pp; German.
XX
CC
     This invention describes a novel method (M1) for linking two or more
CC
     molecular substances (A) together via adapter sequences (AS). One (A) is
CC
     modified so that it contains, as AS, a WW domain or derived structure in
CC
     at least one region, and a second (A) is modified so that it contains, as
CC
     AS, a proline-rich sequence (PRS) able to bind to WW domain or its
CC
     derivative in at least one region and the modified components are allowed
CC
     to interact together through WW and PRS. The method is used to provide
CC
     permanent or temporary association between (A), e.g. temporary
CC
     immobilization, and matrix-assisted refolding, of recombinant proteins
CC
     from crude cell extracts or permanent immobilization in biosensors or
CC
     bioreactors, for directing packaging of proteins inside a virus-like
CC
     shell, or production of chimeric proteins (e.g. bispecific antibodies),
CC
     for medical, therapeutic, diagnostic or biotechnological use. Interaction
CC
     between WW and PRS is very strong (dissociation constant 20-100 nM) but
CC
     only temporary, and can be stabilized (e.g. against extremes of salt
CC
     concentration or temperature) by formation of disulfide bridges. Compared
CC
     with other systems with comparable properties, the WW/PRS system is
     exceptionally small and compact and for many applications, e.g. antibody-
CC
CC
     antigen interaction, is clearly superior to other ligand binding domains.
CC
     The system can only produce heterodimers. This sequence represents a
CC
     proline-rich fragment of the Polyoma virus coat protein VP1 variant PyVP1
CC
     -WW150 construct which is used to illustrate the method of the invention
XX
SO
     Sequence 10 AA;
                          76.2%; Score 32; DB 4; Length 10; 100.0%; Pred. No. 2.9e+02;
  Query Match
  Best Local Similarity
 Matches
             5; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            3 PPPLP 7
              11111
Db
            6 PPPLP 10
RESULT 37
ADB49372
ID
    ADB49372 standard; peptide; 10 AA.
XX
AC
    ADB49372;
```

```
XX
     04-DEC-2003 (first entry)
DΤ
XX
DE
     Biotinylated WW domain binding peptide #30.
XX
KW
     WW domain; drug candidate screening; drug discovery; drug modification;
KW
     drug refinement; immunogen; WW binding protein; WW domain.
XX
OS
     Unidentified.
XX
PN
     US2003077577-A1.
XX
     24-APR-2003.
PD
XX
PF
     28-JUN-2002; 2002US-00185050.
XX
PR
     03-APR-1996;
                    96US-00630916.
     03-APR-1997;
                    97US-00826516.
PR
XX
PA
     (PIRO/) PIROZZI G.
     (KAYB/) KAY B K.
PA
PA
     (FOWL/) FOWLKES D M.
XX
PΙ
     Pirozzi G, Kay BK,
                          Fowlkes DM;
XX
DR
     WPI; 2003-635075/60.
XX
PT
     Novel purified polypeptide comprising WW domain, useful for drug
PT
     discovery, modification and refinement, for discovering polypeptides
PT
     involved in pharmacological activities, or as an immunogen to generate
PT
     antibodies.
XX
PS
     Example; Fig 15C; 133pp; English.
XX
CC
     The invention describes a purified polypeptide (I) comprising a WW domain
     which has a sequence (S1) selected from 11 sequences fully defined in the
CC
CC
     specification, a sequence (S2) selected from 48 sequences fully defined
CC
     in the specification or a sequence (S3) comprising 683, 906, 224 or 725
CC
     amino acids fully defined in the specification. (I) is useful for
CC
     screening a potential drug candidate, by allowing (I) to come into
CC
     contact with at least one recognition unit having a selective affinity
CC
     for the WW domain in (I), in the presence of an amount of a potential
CC
     drug candidate, such that (I) and the recognition unit are capable of
CC
     interacting when brought into contact with one another in the absence of
CC
     the drug candidate, and determining the effect, if any, of the presence
CC
     of the amount of the drug candidate on the interaction of (I) with the
CC
     recognition unit. (I) is useful for drug discovery, modification and
CC
     refinement, for discovering polypeptides involved in pharmacological
CC
     activities, or as an immunogen to generate antibodies. This is the amino
CC
     acid sequence of a WW domain binding peptide.
XX
SQ
     Sequence 10 AA;
  Query Match
                          76.2%; Score 32; DB 7; Length 10;
  Best Local Similarity
                          100.0%; Pred. No. 2.9e+02;
  Matches
             5; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                              0;
                                                                  0; Gaps
```

```
3 PPPLP 7
Qу
              5 PPPLP 9
Db
RESULT 38
ADB49335
     ADB49335 standard; peptide; 10 AA.
XX
AC
     ADB49335;
XX
DT
     04-DEC-2003 (first entry)
XX
DΕ
     Biotinylated WW domain binding peptide #7.
XX
KW
     WW domain; drug candidate screening; drug discovery; drug modification;
KW
     drug refinement; immunogen; WW binding protein; WW domain.
XX
OS
     Unidentified.
XX
PN
    US2003077577-A1.
XX
PD
     24-APR-2003.
XX
PF
     28-JUN-2002; 2002US-00185050.
XX
PR
     03-APR-1996;
                    96US-00630916.
PR
     03-APR-1997;
                    97US-00826516.
XX
PA
     (PIRO/) PIROZZI G.
PA
     (KAYB/) KAY B K.
     (FOWL/) FOWLKES D M.
PA
XX
PΙ
     Pirozzi G, Kay BK, Fowlkes DM;
XX
DR
     WPI; 2003-635075/60.
XX
PΤ
     Novel purified polypeptide comprising WW domain, useful for drug
PΤ
     discovery, modification and refinement, for discovering polypeptides
PT
     involved in pharmacological activities, or as an immunogen to generate
PT
     antibodies.
XX
PS
     Example; Fig 15A; 133pp; English.
XX
CC
     The invention describes a purified polypeptide (I) comprising a WW domain
CC
     which has a sequence (S1) selected from 11 sequences fully defined in the
CC
     specification, a sequence (S2) selected from 48 sequences fully defined
CC
     in the specification or a sequence (S3) comprising 683, 906, 224 or 725
CC
     amino acids fully defined in the specification. (I) is useful for
CC
     screening a potential drug candidate, by allowing (I) to come into
CC
     contact with at least one recognition unit having a selective affinity
CC
     for the WW domain in (I), in the presence of an amount of a potential
CC
     drug candidate, such that (I) and the recognition unit are capable of
CC
     interacting when brought into contact with one another in the absence of
```

the drug candidate, and determining the effect, if any, of the presence

of the amount of the drug candidate on the interaction of (I) with the

recognition unit. (I) is useful for drug discovery, modification and

CC

CC

```
CC
     refinement, for discovering polypeptides involved in pharmacological
CC
     activities, or as an immunogen to generate antibodies. This is the amino
CC
     acid sequence of a WW domain binding peptide.
XX
SQ
     Sequence 10 AA;
  Query Match
                          76.2%; Score 32; DB 7; Length 10;
  Best Local Similarity
                          100.0%; Pred. No. 2.9e+02;
            5; Conservative
  Matches
                                0; Mismatches
                                                                 0; Gaps
                                                  0; Indels
                                                                             0;
            3 PPPLP 7
Qу
              Db
            5 PPPLP 9
RESULT 39
AAB21129
    AAB21129 standard; peptide; 11 AA.
XX
AC
    AAB21129;
XX
DT
     19-JAN-2001 (first entry)
XX
DE
     Src homology 3 domain binding peptide #6.
XX
KW
     Src homology domain 3; SH3; protein-protein interaction; cancer;
KW
     signal transduction inhibition; immune suppression-associated disease.
XX
OS
     Synthetic.
XX
PN
    W0200047607-A1.
XX
PD
     17-AUG-2000.
XX
PF
     12-FEB-2000; 2000WO-KR000107.
XX
PR
     12-FEB-1999;
                    99AU-00008643.
PR
     02-JUN-1999;
                    99KR-00020282.
XX
PA
     (YOON/) YOON J H.
PA
     (HANY/) HAN Y T.
XX
PΙ
     Yoon JH, Han YT, Lee KY;
XX
DR
     WPI; 2000-533010/48.
XX
PT
     Synthetic peptides useful for treating cancers and immunosuppressive
PT
     disorders by disrupting interactions of the SH (Src homology) 2 and SH3
PT
     motifs of Src family kinase proteins.
XX
PS
     Claim 3; Page 34; 40pp; English.
XX
CC
     The present sequence is a synthetic peptide which has a high affinity for
CC
     the src homology 3 (SH3) domain of protein kinases. Protein kinases are
CC
     involved in signal transduction pathways, and this peptide can be used to
CC
     inhibit these, by disrupting protein-protein interactions, in the
CC
     treatment of cancer, particularly hepatocellular carcinoma, cervical
```

```
CC
     cancer, colon adenocarcinoma and fibrosarcoma, and immune suppression-
CC
     associated diseases
XX
SQ
     Sequence 11 AA;
  Query Match
                          76.2%; Score 32; DB 3; Length 11;
                          100.0%; Pred. No. 3.2e+02;
  Best Local Similarity
             5; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
            3 PPPLP 7
Qу
              11111
Db
            4 PPPLP 8
RESULT 40
AAB21132
     AAB21132 standard; peptide; 11 AA.
XX
AC
    AAB21132;
XX
DT
     19-JAN-2001 (first entry)
XX
DE
     Src homology 3 domain binding peptide #9.
XX
KW
     Src homology domain 3; SH3; protein-protein interaction; cancer;
KW
     signal transduction inhibition; immune suppression-associated disease.
XX
OS
     Synthetic.
XX
PN
     WO200047607-A1.
XX
PD
     17-AUG-2000.
XX
PF
     12-FEB-2000; 2000WO-KR000107.
XX
PR
     12-FEB-1999;
                    99AU-00008643.
PR
     02-JUN-1999;
                    99KR-00020282.
XX
PA
     (YOON/) YOON J H.
     (HANY/) HAN Y T.
PA
XX
PΙ
     Yoon JH, Han YT, Lee KY;
XX
DR
     WPI; 2000-533010/48.
XX
PΤ
     Synthetic peptides useful for treating cancers and immunosuppressive
PT
     disorders by disrupting interactions of the SH (Src homology) 2 and SH3
PT
     motifs of Src family kinase proteins.
XX
     Claim 3; Page 35; 40pp; English.
PS
XX
CC
     The present sequence is a synthetic peptide which has a high affinity for
CC
     the src homology 3 (SH3) domain of protein kinases. Protein kinases are
CC
     involved in signal transduction pathways, and this peptide can be used to
CC
     inhibit these, by disrupting protein-protein interactions, in the
CC
     treatment of cancer, particularly hepatocellular carcinoma, cervical
CC
     cancer, colon adenocarcinoma and fibrosarcoma, and immune suppression-
```

```
CC
    associated diseases
XX
SQ
    Sequence 11 AA;
                          76.2%; Score 32; DB 3; Length 11;
  Query Match
                          100.0%; Pred. No. 3.2e+02;
  Best Local Similarity
                              0; Mismatches
 Matches
            5; Conservative
                                                  0; Indels
                                                                 0; Gaps
            3 PPPLP 7
Qy
             1111
Db
            4 PPPLP 8
RESULT 41
AAB21126
ID
    AAB21126 standard; peptide; 11 AA.
XX
    AAB21126;
AC
XX
DT
    19-JAN-2001 (first entry)
XX
DE
    Src homology 3 domain binding peptide #3.
XX
KW
     Src homology domain 3; SH3; protein-protein interaction; cancer;
KW
     signal transduction inhibition; immune suppression-associated disease.
XX
os
     Synthetic.
XX
PN
    WO200047607-A1.
XX
PD
    17-AUG-2000.
XX
PF
    12-FEB-2000; 2000WO-KR000107.
XX
PR
    12-FEB-1999;
                    99AU-00008643.
     02-JUN-1999;
                    99KR-00020282.
PR
XX
PA
     (YOON/) YOON J H.
     (HANY/) HAN Y T.
PA
XX
PΙ
    Yoon JH, Han YT, Lee KY;
XX
DR
    WPI; 2000-533010/48.
XX
PT
     Synthetic peptides useful for treating cancers and immunosuppressive
PT
    disorders by disrupting interactions of the SH (Src homology) 2 and SH3
PT
    motifs of Src family kinase proteins.
XX
PS
    Claim 3; Page 33; 40pp; English.
XX
CC
     The present sequence is a synthetic peptide which has a high affinity for
CC
     the src homology 3 (SH3) domain of protein kinases. Protein kinases are
CC
     involved in signal transduction pathways, and this peptide can be used to
     inhibit these, by disrupting protein-protein interactions, in the
CC
CC
     treatment of cancer, particularly hepatocellular carcinoma, cervical
CC
     cancer, colon adenocarcinoma and fibrosarcoma, and immune suppression-
CC
     associated diseases
```

```
XX
SO
     Sequence 11 AA;
  Query Match
                          76.2%; Score 32; DB 3; Length 11;
                          100.0%; Pred. No. 3.2e+02;
  Best Local Similarity
                                0; Mismatches
             5; Conservative
                                                  0; Indels
                                                                 0; Gaps
                                                                              0;
            3 PPPLP 7
Qу
              Db
            4 PPPLP 8
RESULT 42
ABB99165
     ABB99165 standard; peptide; 11 AA.
ID
XX
    ABB99165;
AC
XX
DT
     22-NOV-2002 (first entry)
XX
DE
     Formin-2 FH1 domain repreated proline motif.
XX
KW
     Formin-2; recurrent pregnancy loss; formin-2; Fmn-2; RPL;
KW
     spontaneous abortion; miscarriage; FH1; proline motif.
XX
OS
     Unidentified.
XX
FH
                     Location/Qualifiers
     Key
FΤ
     Misc-difference 1
FT
                     /label= Met, Val
XX
PN
     US2002098489-A1.
XX
PD
     25-JUL-2002.
XX
PF
     12-APR-2001; 2001US-00835232.
XX
PR
     13-APR-2000; 2000US-0196811P.
XX
     (LEDE/) LEDER P.
PA
PA
     (LEAD/) LEADER B.
XX
ΡI
     Leder P, Leader B;
XX
DR
     WPI; 2002-690474/74.
XX
PT
     Determining whether patient has increased risk for recurrent pregnancy
PT
     loss by determining whether formin-2 (Fmn-2) gene of patient has
PT
     mutation, or by measuring Fmn-2 biological activity or Fmn-2 expression
PT
     in patient.
XX
PS
     Example 1; Page 7; 137pp; English.
XX
СC
     The invention relates to a novel method for determining whether a patient
CC
     has an increased risk for recurrent pregnancy loss, involving determining
CC
     whether the formin-2 (Fmn-2) gene of the patient has a mutation. The
CC
     method of the invention is useful for determining whether a patient has a
```

```
increased risk for recurrent pregnancy loss (RPL/recurrent spontaneous
CC
     abortion/miscarriage). The sequence represents a proline motif which is
CC
     repeated 11 times in tandem in the FH1 domain of formin-2
CC
XX
SQ
     Sequence 11 AA;
                          76.2%; Score 32; DB 5; Length 11;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 3.2e+02;
  Matches
           5; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                              0;
            3 PPPLP 7
Qу
              +
            6 PPPLP 10
Db
RESULT 43
ABB99166
    ABB99166 standard; peptide; 11 AA.
ID
XX
AC
     ABB99166;
XX
DT
     22-NOV-2002 (first entry)
XX
DE
     Formin-2 FH1 domain repreated proline motif #2.
XX
KW
     Formin-2; recurrent pregnancy loss; formin-2; Fmn-2; RPL;
KW
     spontaneous abortion; miscarriage; FH1; proline motif.
XX
OS
     Unidentified.
XX
    US2002098489-A1.
PN
XX
     25-JUL-2002.
PD
XX
     12-APR-2001; 2001US-00835232.
PF
XX
PR
     13-APR-2000; 2000US-0196811P.
XX
PA
     (LEDE/) LEDER P.
PA
     (LEAD/) LEADER B.
XX
PΙ
     Leder P, Leader B;
XX
     WPI; 2002-690474/74.
DR
XX
PT
     Determining whether patient has increased risk for recurrent pregnancy
PT
     loss by determining whether formin-2 (Fmn-2) gene of patient has
PT
     mutation, or by measuring Fmn-2 biological activity or Fmn-2 expression
PT
     in patient.
XX
PS
     Example 1; Page 7; 137pp; English.
XX
CC
     The invention relates to a novel method for determining whether a patient
CC
     has an increased risk for recurrent pregnancy loss, involving determining
CC
     whether the formin-2 (Fmn-2) gene of the patient has a mutation. The
     method of the invention is useful for determining whether a patient has a
CC
CC
     increased risk for recurrent pregnancy loss (RPL/recurrent spontaneous
```

```
CC
     abortion/misc
CC
     repeated in ti
CC
     invention
XX
SQ
     Sequence 11 A
  Query Match
  Best Local Simil
 Matches
            5; C
Qу
            3 PPPL
              \mathbf{H}\mathbf{H}
            7 PPPL
Db
RESULT 44
AAW03154
ID
     AAW03154 stan
XX
AC
     AAW03154;
XX
DT
     16-FEB-1997
XX
DE
     Potential Crk
XX
KW
     Peptide; bind
KW
     diagnosis; an
KW
     intracellular
XX
os
     Synthetic.
XX
PN
     WO9621011-A2.
XX
PD
     11-JUL-1996.
XX
PF
     28-DEC-1995;
XX
PR
     30-DEC-1994;
XX
PA
     (UYRQ ) UNIV :
XX
ΡI
     Hanafusa H,
ΡI
     Cowburn D;
XX
DR
     WPI; 1996-333
XX
PΤ
     New peptide(s
PΤ
     the diagnosis
PT
     transduction,
XX
     Disclosure; P
PS
XX
CC
     New peptides .
CC
     SH3 domain an
CC
     signalling pro
CC
     disorder asso
CC
     particularly
```

```
95WO-US016979.
  94US-00367070.
ROCKEFELLER.
Knudsen BS, Feller SM, Kuriyan J, Wu X, Zheng J;
986/33.
) which bind the Crk-SH3 domain - used to develop prods. for
and treatment of defects in intracellular signal
partic. in cancer.
age 53; 120pp; English.
or proteins which comprise these peptides, bind to the Crk-
d competitively inhibit the binding of intracellular
oteins. They can be used in the treatment of a disease or
ciated with a defect in intracellular signal transduction,
cancer. They can also be used to diagnose such diseases and
arriage). The sequence represents a proline motif which is
he FH1 domain of formin-2 in the brain clones of the
A;
        76.2%; Score 32; DB 5; Length 11;
arity 100.0%; Pred. No. 3.2e+02;
onservative 0; Mismatches 0; Indels
                                               0; Gaps
                                                           0;
P 7
P 11
dard; peptide; 12 AA.
(first entry)
-SH3 binding sequence of protein mSos2/P1.
ing; inhibition; binding domain; Crk-SH3; cancer; treatment;
tibody; signal transduction; disease; disorder;
 للماء المستريد المستفادة وأستافها
```

```
same purposes. The peptides are derived from the Crk-SH3 binding domains
CC
CC
     of intracellular signalling proteins. Peptides related to the invention
CC
     are described in AAW03149-63 and AAW06842-W06866
XX
SQ
     Sequence 12 AA;
  Query Match
                          76.2%; Score 32; DB 2; Length 12;
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+02;
                                 0; Mismatches
             5; Conservative
                                                   0; Indels
                                                                 0; Gaps
                                                                              0;
            3 PPPLP 7
Qу
              Db
            3 PPPLP 7
RESULT 45
AAW05101
     AAW05101 standard; peptide; 12 AA.
XX
     AAW05101;
AC
XX
DT
     25-MAR-2003
                 (revised)
DT
     17-DEC-1996 (first entry)
XX
DE
     Proline-rich SH3 binding peptide pL35.
XX
KW
     Src homology domain; SH3 domain; oncogene; consensus; lambda 35;
KW
     random display library.
XX
OS
     Synthetic.
XX
PN
     US5541109-A.
XX
PD
     30-JUL-1996.
XX
PF
     19-APR-1994;
                    94US-00230047.
XX
PR
     19-APR-1994;
                    94US-00230047.
XX
PΑ
     (RHON ) RHONE POULENC RORER PHARM INC.
XX
ΡI
     Ivashchenko YD, Ricca GA,
                                 Cheadle C, South VJ, Jaye MC;
PΙ
     French SM, Searfoss GH;
XX
DR
     WPI; 1996-361965/36.
XX
PT
     New DNA encoding proteins that bind to Src-homology domain 3 - used to
PT
     inhibit signal transduction, e.g. in cases of T cell activation.
XX
PS
     Example 1; Col 16; 39pp; English.
XX
CC
     A fusion protein of glutathione-S-transferase, protein kinase A and Src
CC
     SH3 domain was used to screen a mouse embryonal cDNA library in lambda
CC
     EXlox. Three positive clones were identified and were designated L17, L14
CC
     and L35. The insert from clone L35 encodes a protein which contains a
CC
     proline-rich, putative SH3-binding sequence. The present peptide sequence
```

disorders. Antibodies raised against these proteins can be used for the

```
is derived from the putative SH3-binding site (i.e. residues 13-24 of
CC
     L35) and was used in an assay to determine binding to the SH3 domains of
CÇ
     c-src and other proteins. (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ
     Sequence 12 AA;
  Query Match
                          76.2%; Score 32; DB 2; Length 12;
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+02;
  Matches
           5; Conservative
                              0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
Qу
           3 PPPLP 7
              +1111
Db
            4 PPPLP 8
RESULT 46
AAW25457
    AAW25457 standard; peptide; 12 AA.
ID
XX
AC
    AAW25457;
XX
DT
    27-MAR-1998 (first entry)
XX
DΕ
     SH3 domain binding responsible peptide SEQ ID NO:251.
XX
KW
     Cortactin; SH3 domain; binding peptide; Src homology region 3;
KW
     tyrosine kinase; immune response; lymphokine; interleukin 1; Nck; Abl;
KW
     PLCgamma; p53bp2; Crk; Yes; Grb2.
XX
os
     Synthetic.
os
    Unidentified.
XX
PN
    WO9730074-A1.
XX
PD
    21-AUG-1997.
XX
PF
    14-FEB-1997;
                    97WO-US002298.
XX
PR
     16-FEB-1996;
                    96US-00602999.
XX
PA
     (CYTO-) CYTOGEN CORP.
PA
     (UYNC-) UNIV NORTH CAROLINA.
XX
PΙ
     Sparks AB, Kay BK, Thorn JM, Quilliam LA, Der CJ, Fowlkes DM;
PΙ
     Rider JE;
XX
     WPI; 1997-424972/39.
DR
XX
PT
     Src homology region 3 binding peptide - used to activate Src tyrosine
PΤ
     kinase(s) and to stimulate immune response by increasing production of
PΤ
     certain lymphokine(s), e.g. interleukin-1.
XX
PS
     Claim 21; Page 85; 131pp; English.
XX
CC
     The present sequence represents a peptide responsible for Src homology
CC
     region 3 (SH3) binding. SH3 binding peptides are selected from: (a)
CC
     peptides which bind the SH3 domain of Cortactin; (b) peptides which bind
```

```
CC
     the middle SH3 domain of Nck; (c) peptides which bind the SH3 domain of
CC
     Abl; (d) peptides which bind the SH3 domain of Src; (e) peptides which
CC
     bind the SH3 domain of PLC gamma; (f) peptides which bind the SH3 domain
CC
     of p53bp2; (q) peptides which bind the amino-terminal SH3 domain of Crk;
CC
     (h) peptides which bind the SH3 domain of Yes; and (i) peptides which
CC
     bind the amino-terminal SH3 domain of Grb2. The purified binding peptides
CC
     can be used in the method to identify inhibitors of their binding to
CC
     their respective SH3 domains, which could be used to modulate the
CC
     pharmacological activity of proteins or polypeptide containing the SH3
CC
     domain. The peptides can also be used to activate Src or Src-related
CC
     protein tyrosine kinases, to stimulate the immune response by increasing
CC
     the production of certain lymphokines, e.g. tumour necrosis factor-alpha
CC
     and interleukin-1, or to deliver a conjugated molecule to certain
CC
     cellular compartments containing Src or Src related proteins
XX
SQ
     Sequence 12 AA;
  Query Match
                          76.2%; Score 32; DB 2; Length 12;
                          100.0%; Pred. No. 3.4e+02;
  Best Local Similarity
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  Matches
             5; Conservative
                                                  0; Indels
                                                                  0; Gaps
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            3 PPPLP 7
Qу
              11111
Db
            6 PPPLP 10
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AAB18002
     AAB18002 standard; peptide; 12 AA.
ΙD
XX
AC
    AAB18002;
XX
DT
     31-OCT-2000
                  (first entry)
XX
DE :
     Fc-TNF alpha peptide sequence SEQ ID NO:1116.
XX
KW
    Modified peptide; therapeutic agent; fusion; Fc domain; cancer;
KW
     autoimmune disease; cytostatic; antiasthmatic; thrombolytic; VEGF;
KW
     immunosuppressive; EPO; TPO; CTLA4; mimetic; IL-1; TNF; antagonist; MMP;
KW
     inhibitor; erythropoietin; thrombopoietin; interleukin 1;
KW
     cytotoxic T cell lymphocyte antigen 4; tumour necrosis factor;
KW
     vascular endothelial growth factor; matrix metalloproteinase; asthma;
KW
     thrombosis; pharmaceutical.
XX
OS
     Synthetic.
XX
PN
     WO200024782-A2.
XX
PD
     04-MAY-2000.
XX
PF
     25-OCT-1999;
                    99WO-US025044.
XX
PR
     23-OCT-1998;
                    98US-0105371P.
PR
                    99US-00428082.
     22-OCT-1999;
XX
     (AMGE-) AMGEN INC.
PA
XX
```

```
PΙ
     Feige U, Liu C, Cheetham J, Boone TC;
XX
DR
     WPI; 2000-350702/30.
XX
PT
     Novel composition of matter comprising an Fc domain and pharmacologically
PT
     active peptides, useful for treating cancer and autoimmune diseases.
XX
PS
     Disclosure; Page 604; 608pp; English.
XX
CC
     The present invention describes composition of matter (I) comprising an
CC
     Fc domain, pharmacologically active peptides, and linkers. Where (I) is:
CC
     (X1)a-F1-(X2)b, where: F1 = an Fc domain; X1 and X2 = are each
     independently selected from -(L1)c-P1, -(L1)c-P1-(L2)d-P2, -(L1)c-P1-
CC
CC
     (L2)d-P2-(L3)e-P^3, or -(L1)c-P1-(L2)d-P2-(L3)e-P3-(L4)f-P4 where P1, P2,
CC
     P3, and P4 = are each independently sequences of pharmacologically active
CC
     peptides; L1, L2, L3, and L4 = are each independently linkers; and a, b,
CC
     c, d, e, and f = are each independently 0 or 1, provided that at least 1
CC
     of a and b is 1. The composition can have cytostatic, antiasthmatic,
CC
     thrombolytic and immunosuppressive activities. DNAs, vectors and host
CC
     cells from the present invention can be used for producing pharmaceutical
CC
     compositions. The compositions are useful for treating cancer, asthma,
CC
     thrombosis, or autoimmune diseases. The use of an Fc domain (rather than
CC
     a Fab domain) can provide a longer half-life or incorporate functions
CC
     such as Fc receptor binding, protein A binding, complement fixation, and
CC
     possibly placental transfer. AAA69443 to AAA69526 and AAB16955 to
CC
     AAB18003 represent nucleotide and amino acid sequences used in the
CC
     exemplification of the present invention
XX
SQ
     Sequence 12 AA;
  Query Match
                          76.2%; Score 32; DB 3; Length 12;
  Best Local Similarity
                          100.0%; Pred. No. 3.4e+02;
                                                                  0; Gaps
  Matches
             5; Conservative
                                0; Mismatches
                                                   0; Indels
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            3 PPPLP 7
Qу
              11111
Db
            8 PPPLP 12
RESULT 48
ADA50131
ΙD
     ADA50131 standard; peptide; 12 AA.
XX
AC
     ADA50131;
XX
DT
     20-NOV-2003 (first entry)
XX
DE
     Mad2 binding peptide (MBP) Seq ID9 amino acid sequence.
XX
KW
     mitotic checkpoint protein; Mad2; Mad2 binding peptide; MBP;
KW
     spindle assembly checkpoint; malignant transformation; tumourigenesis;
KW
     checkpoint protein; breast cancer; cancer; anticancer; cytostatic;
KW
     prostate cancer; breast cancer; lung cancer; brain cancer; liver cancer;
KW
     pancreatic cancer; stomach cancer; colon cancer; ovarian cancer;
     testicular cancer; head and neck cancer; throat cancer;
KW
KW
     oesophageal cancer; phage display.
XX
```

```
OS
     Synthetic.
XX
PN
     US2003083261-A1.
XX
PD
     01-MAY-2003.
XX
PF
     30-APR-2001; 2001US-00845612.
XX
PR
     30-APR-2001; 2001US-00845612.
XX
     (YUHH/) YU H.
PA
     (TANG/) TANG Z.
PA
PA
     (LUOX/) LUO X.
PA
     (RIZO/) RIZO-REY J.
XX
PΙ
     Yu H, Tang Z, Luo X, Rizo-Rey J;
XX
DR
    WPI; 2003-616086/58.
XX
PT
     Inhibiting Mad2 function, useful for treating cancer, e.g. prostate,
     breast, lung, brain, liver, pancreatic, stomach, colon, ovarian,
РΤ
     testicular, head or neck cancer comprises contacting a Mad2 protein with
PΤ
PT
     a peptide that binds Mad2.
XX
PS
     Example 4; Fig 1b; 43pp; English.
XX
     This invention relates to methods of inhibiting the function of a mitotic
CC
CC
     checkpoint protein, Mad2, using peptides that bind to Mad2. These
CC
     peptides were named Mad2 binding peptides (MBPs). It has been suggested
CC
     that defects of the spindle assembly checkpoint, of which Mad2 is a
CC
     component, contributes to malignant transformation and tumourigenesis.
CC
     Therefore the genes for checkpoint proteins may be involved in the
CC
    pathogenesis of, for example, breast cancer. The MBPs of the invention
     may be used to inhibit Mad2 function and, as a result, these peptides may
CC
CC
     be useful for treating cancer in a subject or screening for anticancer
     agents. Hence the MBPs may have a cytostatic activity. The methods and
CC
     proteins of the invention may be particularly useful for treating cancer
CC
CC
     of, for example, the prostate, breast, lung, brain, liver, pancreatic,
CC
     stomach, colon, ovarian, testicular, head and neck, throat or oesophagus.
CC
     The present sequence is the amino acid sequence of a Mad2 binding peptide
CC
     (MBP) of the invention, which was identified using phage display of
CC
     synthetic peptides in the examples of the specification.
XX
SQ
     Sequence 12 AA;
                          76.2%; Score 32; DB 6; Length 12;
  Query Match
  Best Local Similarity
                          83.3%; Pred. No. 3.4e+02;
                                                                 0; Gaps
  Matches
            5; Conservative
                                1; Mismatches
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            1 MOPPPL 6
Qу
              : | | | | |
Db
            5 LQPPPL 10
RESULT 49
AAR84641
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AAR84641 standard; peptide; 13 AA.

```
XX
AC
     AAR84641;
XX
DT
     26-MAR-1996 (first entry)
XX
DE
     Grb2-SOS binding blocking peptide.
XX
KW
     SOS; Grb2; BCR-ABL; tyrosine kinase; transformation; Ras; oncoprotein;
KW
     leukaemia; Ras quanine nucleotide releasing protein.
XX
os
     Synthetic.
XX
PN
     CA2113494-A.
XX
PD
     15-JUL-1995.
XX
PF
     14-JAN-1994;
                    94CA-02113494.
XX
PR
     14-JAN-1994; 94CA-02113494.
XX
PA
     (MOUN ) MOUNT SINAI HOSPITAL CORP.
PA
     (TEXA ) UNIV TEXAS.
XX
PΙ
     Puil L, Pawson A, Arlinghaus R, Gish G, Liu J;
XX
DR
     WPI; 1995-302931/40.
XX
PT
     Detection of agents that modify BCR-ABL mediated transformation - useful
PT
     in treatment of leukaemia and other malignancies.
XX
PS
     Disclosure; Page 15; 106pp; English.
XX
CC
     Peptides (AAR84640-48) that block the binding of Grb2 (AAR84636) to SOS
CC
     Ras guanine nucleotide releasing protein are modelled on the proline-rich
     motifs in the C-terminal region of mouse SOS1 (AAR84638) and SOS2
CC
CC
     (AAR84639). The peptides can be used to screen for compounds that affect
     BCL-ABL mediated transformation. Such compounds have value in the
CC
     treatment of chronic, acute myelogenous or acute lymphocytic leukaemia
CC
XX
SO
     Sequence 13 AA;
  Query Match
                          76.2%; Score 32; DB 2; Length 13;
  Best Local Similarity 100.0%; Pred. No. 3.7e+02;
  Matches
            5; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
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Qу
             Db
            5 PPPLP 9
RESULT 50
AAB70928
ID
     AAB70928 standard; protein; 13 AA.
XX
AC
     AAB70928;
XX
DΤ
     30-JUL-2001 (first entry)
```

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XX
DE
     Polyoma virus VP1 variant proline-rich peptide fragment.
XX
     VP1; coat protein; WW domain; proline-rich; immobilization; biosensor;
KW
KW
     bioreactor; protein packaging; PyVP1-WW150-D8C.
XX
os
     Polyoma virus.
XX
PN
     WO200132684-A2.
XX
PD
     10-MAY-2001.
XX
     03-NOV-2000; 2000WO-EP010873.
ΡF
XX
PR
     03-NOV-1999;
                    99DE-01052956.
XX
     (ACGT-) ACGT PROGENOMICS AG.
PA
XX
PΙ
     Boehm G, Schmidt U, Parthier C, Guenther C;
XX
DR
     WPI; 2001-343471/36.
XX
PT
     Linking two or more molecules through adapter sequences, useful e.g. for
PT
     purifying recombinant proteins, by exploiting interaction between WW
PT
     domain and proline-rich sequence.
XX
PS
     Example 5; Page 88; 100pp; German.
XX
CC
     This invention describes a novel method (M1) for linking two or more
CC
     molecular substances (A) together via adapter sequences (AS). One (A) is
CC
     modified so that it contains, as AS, a WW domain or derived structure in
CC
     at least one region, and a second (A) is modified so that it contains, as
CC
     AS, a proline-rich sequence (PRS) able to bind to WW domain or its
CC
     derivative in at least one region and the modified components are allowed
CC
     to interact together through WW and PRS. The method is used to provide
CC
     permanent or temporary association between (A), e.g. temporary
CC
     immobilization, and matrix-assisted refolding, of recombinant proteins
CC
     from crude cell extracts or permanent immobilization in biosensors or
CC
     bioreactors, for directing packaging of proteins inside a virus-like
CC
     shell, or production of chimeric proteins (e.g. bispecific antibodies),
CC
     for medical, therapeutic, diagnostic or biotechnological use. Interaction
CC
     between WW and PRS is very strong (dissociation constant 20-100 nM) but
CC
     only temporary, and can be stabilized (e.g. against extremes of salt
CC
     concentration or temperature) by formation of disulfide bridges. Compared
CC
     with other systems with comparable properties, the WW/PRS system is
CC
     exceptionally small and compact and for many applications, e.g. antibody-
CC
     antigen interaction, is clearly superior to other ligand binding domains.
CC
     The system can only produce heterodimers. This sequence represents a
CC
     proline-rich peptide fragment from Polyoma virus coat protein VP1 which
CC
     is used to illustrate the method of the invention
XX
SQ
     Sequence 13 AA;
  Query Match
                          76.2%; Score 32; DB 4; Length 13;
  Best Local Similarity
                          100.0%; Pred. No. 3.7e+02;
                                                                 0; Gaps
  Matches
             5; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                              0;
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Qy 3 PPPLP 7 11111 Db 9 PPPLP 13

Search completed: July 4, 2004, 04:40:31 Job time : 19.403 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: July 4, 2004, 04:37:26; Search time 4.38806 Seconds

(without alignments)

82.356 Million cell updates/sec

Title: US-09-641-802-1

Perfect score: 42

Sequence: 1 MQPPPLP 7

Scoring table: BLOSUM62

Gapop 10.0, Gapext 0.5

Searched: 389414 seqs, 51625971 residues

Total number of hits satisfying chosen parameters: 121837

Minimum DB seq length: 7
Maximum DB seq length: 18

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database : Issued Patents AA:*

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2: /cgn2 6/ptodata/2/iaa/5B COMB.pep:*

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5: /cgn2 6/ptodata/2/iaa/PCTUS COMB.pep:*

6: /cgn2 6/ptodata/2/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID .	Description
1	42	100.0	7	4	US-09-641-803-1	Sequence 1, Appli
2	33	78.6	10	3	US-08-602-999A-278	Sequence 278, App
3	33	78.6	10	4	US-09-500-124-278	Sequence 278, App
4	32	76.2	7	1	US-08-230-047-40	Sequence 40, Appl
5	32	76.2	7	5	PCT-US94-01840-11	Sequence 11, Appl
6	32	76.2	8	1	US-09-641-640-8	Sequence 8, Appli
7	32	76.2	8	2	US-08-612-857-8	Sequence 8, Appli
8	32	76.2	10	1	US-08-230-047-12	Sequence 12, Appl
9	32	76.2	10	1	US-08-230-047-14	Sequence 14, Appl
10	32	76.2	10	1	US-08-212-190A-8	Sequence 8, Appli
11	32	76.2	10	2	US-08-900-321-8	Sequence 8, Appli

12	32	76.2	10	3	US-08-899-595-8	Sequence 8, Appli
13	32	76.2	10	5	PCT-US95-03610-8	Sequence 8, Appli
14	32	76.2	11	1	US-08-336-343A-25	Sequence 25, Appl
15	32	76.2	11	3	US-08-652-877-22	
16	32	76.2	11	3	US-08-652-877-32	Sequence 22, Appl
17						Sequence 32, Appl
	32	76.2	11	3	US-08-476-515A-22	Sequence 22, Appl
18	32	76.2	11	3	US-08-476-515A-32	Sequence 32, Appl
19	32	76.2	12	1	US-08-230-047-17	Sequence 17, Appl
20	32	76.2	12	3	US-08-602-999A-251	Sequence 251, App
21	32	76.2	12	3	US-08-602-999A-267	Sequence 267, App
22	32	76.2	12	4	US-09-500-124-251	Sequence 251, App
23	32	76.2	12	4	US-09-500-124-267	Sequence 267, App
24	32	76.2	13	4	US-09-845-917A-13	Sequence 13, Appl
25	32	76.2	13	4	US-09-845-917A-14	Sequence 14, Appl
26	32	76.2	13	4	US-09-845-917A-19	Sequence 19, Appl
27	32	76.2	13	4	US-09-845-917A-21	Sequence 21, Appl
28	32	76.2	14	1	US-08-185-432-12	Sequence 12, Appl
29	32	76.2	14	3	US-08-630-916A-63	Sequence 63, Appl
30	32	76.2	14	4	US-08-630-915A-186	Sequence 186, App
31	32	76.2	15	1	US-08-185-432-10	Sequence 10, Appl
32	32	76.2	15	2	US-08-769-745-31	Sequence 31, Appl
33	32	76.2	15	3	US-08-602-999A-356	Sequence 356, App
34	32	76.2	15	3	US-08-602-999A-385	Sequence 385, App
35	32	76.2	15	3	US-08-602-999A-404	Sequence 404, App
36	32	76.2	15	3	US-08-602-999A-414	Sequence 414, App
37	32	76.2	15	3	US-08-602-999A-435	Sequence 435, App
38	32	76.2	15	3	US-08-602-999A-436	Sequence 436, App
39	32	76.2	15	3	US-08-602-999A-441	Sequence 441, App
40	32	76.2	15	3	US-08-602-999A-452	Sequence 452, App
41	32	76.2	15	4	US-09-500-124-356	Sequence 356, App
42	32	76.2	15	4	US-09-500-124-385	Sequence 385, App
43	32	76.2	15	4	US-09-500-124-404	Sequence 404, App
44	32	76.2	15	4	US-09-500-124-414	Sequence 414, App
45	32	76.2	15	4	US-09-500-124-435	Sequence 435, App
46	32	76.2	15	4	US-09-500-124-436	Sequence 436, App
47	32	76.2	15	4	US-09-500-124-441	Sequence 441, App
48	32	76.2	15	4	US-09-500-124-452	Sequence 452, App
49	32	76.2	16	1	US-08-185-432-9	Sequence 9, Appli
50	32	76.2	16	1	US-08-185-432-14	Sequence 14, Appl
51	32	76.2	16	3		Sequence 197, App
52	32	76.2	16	4	US-09-500-124-197	Sequence 197, App
53	32	76.2	17	1	US-08-230-047-10	Sequence 10, Appl
54	32	76.2	17	3	US-08-602-999A-360	Sequence 360, App
55	32	76.2	17	3	US-08-602-999A-374	Sequence 374, App
56	32	76.2	17	4	US-09-500-124-360	Sequence 360, App
57	32	76.2	17	4	US-09-500-124-374	Sequence 374, App
58	32	76.2	18	3	US-08-602-999A-320	Sequence 320, App
59	32	76.2	18	3	US-08-602-999A-409	Sequence 409, App
60	32	76.2	18	4	US-09-500-124-320	Sequence 320, App
61	32	76.2	18	4	US-09-500-124-409	Sequence 409, App
62	31	73.8	12	4	US-09-315-926A-16	Sequence 16, Appl
63	31	73.8	13	3	US-08-630-916A-8	Sequence 8, Appli
64	31	73.8	13	3	US-08-630-916A-87	Sequence 87, Appl
65	31	73.8	13	4	US-08-630-915A-143	Sequence 143, App
66	31	73.8	15	3	US-08-602-999A-301	Sequence 301, App
67	31	73.8	15	4	US-09-500-124-301	Sequence 301, App
68	31	73.8	16	3	US-08-602-999A-344	Sequence 344, App
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ALIGNMENTS

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RESULT 1
US-09-641-803-1
; Sequence 1, Application US/09641803
; Patent No. 6500798
; GENERAL INFORMATION:
  APPLICANT: STANTON, G. John
  APPLICANT:
              HUGHES, Thomas K.
  APPLICANT: BOLDOGH, Istvan
  TITLE OF INVENTION: USE OF COLOSTRININ, CONSTITUENT PEPTIDES THEREOF, AND
  TITLE OF INVENTION: ANALOGS THEREOF AS OXIDATIVE STRESS REGULATORS
  FILE REFERENCE: 265.00220101
  CURRENT APPLICATION NUMBER: US/09/641,803
   CURRENT FILING DATE: 2000-08-17
   PRIOR APPLICATION NUMBER: 60/149,310
  PRIOR FILING DATE: 1999-08-17
  NUMBER OF SEQ ID NOS:
   SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
   LENGTH: 7
    TYPE: PRT
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ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: Description of Artificial Sequence: synthetic
  OTHER INFORMATION: peptide
US-09-641-803-1
  Query Match
                         100.0%; Score 42; DB 4; Length 7;
  Best Local Similarity 100.0%; Pred. No. 3e+05;
 Matches 7; Conservative 0; Mismatches
                                               0; Indels 0; Gaps
                                                                           0;
           1 MQPPPLP 7
Qу
             111111
Db
           1 MOPPPLP 7
RESULT 2
US-08-602-999A-278
; Sequence 278, Application US/08602999A
; Patent No. 6184205
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999A
      FILING DATE: 16-FEB-1996
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 278:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 10 amino acids
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TYPE: amino acid
       TOPOLOGY: unknown
     MOLECULE TYPE: peptide
US-08-602-999A-278
                          78.6%; Score 33; DB 3; Length 10;
  Query Match
  Best Local Similarity 83.3%; Pred. No. 27;
  Matches 5; Conservative 1; Mismatches
                                                   0; Indels 0; Gaps
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Qу
            2 QPPPLP 7
              : | | | | |
Db
            1 KPPPLP 6
RESULT 3
US-09-500-124-278
; Sequence 278, Application US/09500124
; Patent No. 6432920
; GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B. APPLICANT: KAY, Brian K. APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
     TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
     ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
     MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/09/500,124
       FILING DATE:
       CLASSIFICATION:
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: 08/602,999
       FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
       REGISTRATION NUMBER: 18,872
       REFERENCE/DOCKET NUMBER: 1101-202
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (212) 790-9090
       TELEFAX: (212) 869-9741/8864
       TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 278:
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SEQUENCE CHARACTERISTICS:
       LENGTH: 10 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-09-500-124-278
 Query Match
                         78.6%; Score 33; DB 4; Length 10;
 Best Local Similarity
                         83.3%; Pred. No. 27;
           5; Conservative 1; Mismatches
  Matches
                                                  0; Indels
                                                                0; Gaps
                                                                            0;
           2 QPPPLP 7
Qу
              :11111
Db
            1 KPPPLP 6
RESULT 4
US-08-230-047-40
; Sequence 40, Application US/08230047
; Patent No. 5541109
  GENERAL INFORMATION:
    APPLICANT: Searfoss III, George H.
    APPLICANT: Ivashchenko, Yuri D.
    APPLICANT: Jaye, Michael C.
    TITLE OF INVENTION: EXPRESSION CLONING OF C-SRC SH3 BINDING
    TITLE OF INVENTION: PROTEIN
    NUMBER OF SEQUENCES: 40
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Rhone-Poulenc Rorer Inc.
      STREET: 500 Arcola Road, 3C43
      CITY: Collegeville
      STATE: PA
      COUNTRY: USA
      ZIP: 19426
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: Macintosh
      OPERATING SYSTEM: System 7.1
       SOFTWARE: Word 5.0 (PatentIn)
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/230,047
      FILING DATE: 19-APR-1994
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Goodman, Rosanne
      REGISTRATION NUMBER: 32,534
       REFERENCE/DOCKET NUMBER: A1465-US
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (610) 454-3817
       TELEFAX: (610) 454-3808
   INFORMATION FOR SEQ ID NO: 40:
    SEQUENCE CHARACTERISTICS:
       LENGTH: 7 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-230-047-40
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Query Match
                        76.2%; Score 32; DB 1; Length 7;
  Best Local Similarity 100.0%; Pred. No. 3e+05;
           5; Conservative
                             0; Mismatches
                                               0; Indels 0; Gaps
                                                                           0;
           3 PPPLP 7
Qу
             11111
           1 PPPLP 5
Db
RESULT 5
PCT-US94-01840-11
; Sequence 11, Application PC/TUS9401840
  GENERAL INFORMATION:
    APPLICANT: Christopher E. Rudd
;
    APPLICANT: Prasad Kanteti
    APPLICANT: Lewis Cantley
    TITLE OF INVENTION: CD4 MEDIATED MODULATION OF
    TITLE OF INVENTION: LIPID KINASES
    NUMBER OF SEQUENCES: 13
    CORRESPONDENCE ADDRESS:
;
     ADDRESSEE: Fish & Richardson
      STREET: 225 Franklin Street
      CITY: Boston
      STATE: Massachusetts
;
      COUNTRY: U.S.A.
;
      ZIP: 02110-2804
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
;
      COMPUTER: IBM PS/2 Model 50Z or 55SX
      OPERATING SYSTEM: MS-DOS (Version 5.0)
      SOFTWARE: WordPerfect (Version 5.1)
;
    CURRENT APPLICATION DATA:
;
      APPLICATION NUMBER: PCT/US94/01840
      FILING DATE:
;
      CLASSIFICATION:
;
    PRIOR APPLICATION DATA:
;
     APPLICATION NUMBER: US 08/023,915
      FILING DATE: February 26, 1993
    ATTORNEY/AGENT INFORMATION:
      NAME: Janis K. Fraser
;
      REGISTRATION NUMBER: 34,819
      REFERENCE/DOCKET NUMBER: 00530/063001
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (617) 542-5070
      TELEFAX: (617) 542-8906
      TELEX: 200154
  INFORMATION FOR SEQ ID NO: 11:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 7
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: Linear
PCT-US94-01840-11
                         76.2%; Score 32; DB 5; Length 7;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 3e+05;
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Matches 5; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
           3 PPPLP 7
Qу
             11111
           1 PPPLP 5
Db
RESULT 6
US-09-641-640-8
; Sequence 8, Application US/09641640
; Patent No. RE37952
    GENERAL INFORMATION:
        APPLICANT: SCHWEIGHOFFER, Fabien
                    TOCQUE, Bruno
        TITLE OF INVENTION: GRB3-3 GENE, VARIANTS AND USES THEREOF
        NUMBER OF SEQUENCES: 10
        CORRESPONDENCE ADDRESS:
              ADDRESSEE: Rhone-Poulenc Rorer Inc.
              STREET: 500 Arcola Rd. 3C43
              CITY: Collegeville
              STATE: PA
              COUNTRY: USA
              ZIP: 19426
         COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.30
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/641,640
              FILING DATE: 15-Aug-2000
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: 08/612,857
              FILING DATE: <Unknown>
              APPLICATION NUMBER: WO PCT/FR94/00542
              FILING DATE: 09-MAY-1994
        ATTORNEY/AGENT INFORMATION:
              NAME: Smith Ph.D., Julie K.
              REGISTRATION NUMBER: 38,619
              REFERENCE/DOCKET NUMBER: ST93044-US
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (610) 454-3839
              TELEFAX: (610)454-3808
    INFORMATION FOR SEQ ID NO: 8:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 8 amino acids
              TYPE: amino acid
              STRANDEDNESS: <Unknown>
              TOPOLOGY: linear
        MOLECULE TYPE: peptide
         FRAGMENT TYPE: internal
         FEATURE:
              NAME/KEY: Peptide
              LOCATION: 1..8
              OTHER INFORMATION: /note= "3BP1 peptide"
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SEQUENCE DESCRIPTION: SEQ ID NO: 8:

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Query Match
                        76.2%; Score 32; DB 1; Length 8;
 Best Local Similarity 100.0%; Pred. No. 3e+05;
 Matches
           5; Conservative 0; Mismatches
                                                0; Indels 0; Gaps
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           3 PPPLP 7
Qу
             Db
           1 PPPLP 5
RESULT 7
US-08-612-857-8
; Sequence 8, Application US/08612857
; Patent No. 5831048
  GENERAL INFORMATION:
    APPLICANT: SCHWEIGHOFFER, Fabien
    APPLICANT: TOCQUE, Bruno
    TITLE OF INVENTION: GRB3-3 GENE, VARIANTS AND USES THEREOF
    NUMBER OF SEQUENCES: 10
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Rhone-Poulenc Rorer Inc.
      STREET: 500 Arcola Rd. 3C43
      CITY: Collegeville
      STATE: PA
      COUNTRY: USA
      ZIP: 19426
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/612,857
      FILING DATE:
      CLASSIFICATION: 435
;
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: FR 93-10971
      FILING DATE: 15-SEP-1993
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/FR94/00542
      FILING DATE: 09-MAY-1994
    ATTORNEY/AGENT INFORMATION:
      NAME: Smith Ph.D., Julie K.
      REGISTRATION NUMBER: 38,619
      REFERENCE/DOCKET NUMBER: ST93044-US
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (610) 454-3839
      TELEFAX: (610) 454-3808
  INFORMATION FOR SEQ ID NO: 8:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 8 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FRAGMENT TYPE: internal
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FEATURE:
      NAME/KEY: Peptide
      LOCATION: 1..8
       OTHER INFORMATION: /note= "3BP1 peptide"
US-08-612-857-8
                         76.2%; Score 32; DB 2; Length 8; 100.0%; Pred. No. 3e+05;
  Query Match
 Best Local Similarity
  Matches 5; Conservative 0; Mismatches 0; Indels
                                                             0; Gaps
                                                                            0;
Qy
            3 PPPLP 7
             +1111
            1 PPPLP 5
Db
RESULT 8
US-08-230-047-12
; Sequence 12, Application US/08230047
; Patent No. 5541109
; GENERAL INFORMATION:
    APPLICANT: Searfoss III, George H.
    APPLICANT: Ivashchenko, Yuri D.
    APPLICANT: Jaye, Michael C.
    TITLE OF INVENTION: EXPRESSION CLONING OF C-SRC SH3 BINDING
   TITLE OF INVENTION: PROTEIN
   NUMBER OF SEQUENCES: 40
   CORRESPONDENCE ADDRESS:
    ADDRESSEE: Rhone-Poulenc Rorer Inc.
      STREET: 500 Arcola Road, 3C43
      CITY: Collegeville
      STATE: PA
      COUNTRY: USA
       ZIP: 19426
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: Macintosh
      OPERATING SYSTEM: System 7.1
      SOFTWARE: Word 5.0 (PatentIn)
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/230,047
      FILING DATE: 19-APR-1994
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Goodman, Rosanne
       REGISTRATION NUMBER: 32,534
       REFERENCE/DOCKET NUMBER: A1465-US
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (610) 454-3817
       TELEFAX: (610) 454-3808
   INFORMATION FOR SEQ ID NO: 12:
    SEQUENCE CHARACTERISTICS:
       LENGTH: 10 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-230-047-12
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Query Match
                        76.2%; Score 32; DB 1; Length 10;
 Best Local Similarity 100.0%; Pred. No. 38;
 Matches 5; Conservative 0; Mismatches
                                                 0; Indels 0; Gaps
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           3 PPPLP 7
Qу
             11111
Db
           5 PPPLP 9
RESULT 9
US-08-230-047-14
; Sequence 14, Application US/08230047
; Patent No. 5541109
  GENERAL INFORMATION:
    APPLICANT: Searfoss III, George H.
;
    APPLICANT: Ivashchenko, Yuri D.
    APPLICANT: Jaye, Michael C.
    TITLE OF INVENTION: EXPRESSION CLONING OF C-SRC SH3 BINDING
;
    TITLE OF INVENTION: PROTEIN
    NUMBER OF SEQUENCES: 40
;
    CORRESPONDENCE ADDRESS:
;
     ADDRESSEE: Rhone-Poulenc Rorer Inc.
;
      STREET: 500 Arcola Road, 3C43
      CITY: Collegeville
;
      STATE: PA
;
      COUNTRY: USA
;
      ZIP: 19426
;
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
;
      COMPUTER: Macintosh
;
      OPERATING SYSTEM: System 7.1
;
      SOFTWARE: Word 5.0 (PatentIn)
;
    CURRENT APPLICATION DATA:
;
     APPLICATION NUMBER: US/08/230,047
;
      FILING DATE: 19-APR-1994
;
      CLASSIFICATION: 435
;
    ATTORNEY/AGENT INFORMATION:
;
     NAME: Goodman, Rosanne
;
      REGISTRATION NUMBER: 32,534
      REFERENCE/DOCKET NUMBER: A1465-US
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (610) 454-3817
      TELEFAX: (610) 454-3808
   INFORMATION FOR SEQ ID NO: 14:
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 10 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-230-047-14
  Query Match
                         76.2%; Score 32; DB 1; Length 10;
 Best Local Similarity 100.0%; Pred. No. 38;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
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           3 PPPLP 7
Qу
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11111

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RESULT 10
US-08-212-190A-8
; Sequence 8, Application US/08212190A
; Patent No. 5652223
; GENERAL INFORMATION:
    APPLICANT: KOHN, Elise C.
    APPLICANT: LIOTTA, Lance A.
    APPLICANT: KIM, Young Sook
    TITLE OF INVENTION: DNA ENCODING CAI RESISTANCE PROTEINS AND
    TITLE OF INVENTION: USES THEREOF
    NUMBER OF SEQUENCES: 10
  CORRESPONDENCE ADDRESS:
    ADDRESSEE: Townsend and Townsend and Crew
    STREET: Steuart Street Tower, One Market Plaza
    CITY: San Francisco
    STATE: California
    COUNTRY: US
     ZIP: 94105-1493
   COMPUTER READABLE FORM:
    MEDIUM TYPE: Floppy disk
     COMPUTER: IBM PC compatible
     OPERATING SYSTEM: PC-DOS/MS-DOS
     SOFTWARE: PatentIn Release #1.0, Version #1.25
   CURRENT APPLICATION DATA:
   APPLICATION NUMBER: US/08/212,190A
    FILING DATE: 14-MAR-1994
     CLASSIFICATION: 435
   ATTORNEY/AGENT INFORMATION:
    NAME: Hunter, Tom
    REGISTRATION NUMBER: 38,498
    REFERENCE/DOCKET NUMBER: 15280-204US
     REFERENCE/DOCKET NUMBER: DHHS Ref. No. 5652223 E-112-94/0
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (415) 543-9600
      TELEFAX: (415) 543-5043
 INFORMATION FOR SEQ ID NO: 8:
    SEQUENCE CHARACTERISTICS:
     LENGTH: 10 amino acids
     TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-212-190A-8
 Query Match
                        76.2%; Score 32; DB 1; Length 10;
 Best Local Similarity 100.0%; Pred. No. 38;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
          3 PPPLP 7
Qу
            5 PPPLP 9
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US-08-900-321-8
; Sequence 8, Application US/08900321
; Patent No. 5981712
  GENERAL INFORMATION:
    APPLICANT: Kohn, Elise C.
    APPLICANT: Liotta, Lance A. APPLICANT: Kim, Young S.
;
;
    TITLE OF INVENTION: DNA Encoding CAI Resistance Proteins and
    TITLE OF INVENTION: Uses Thereof
   NUMBER OF SEQUENCES: 10
   CORRESPONDENCE ADDRESS:
;
      ADDRESSEE: Townsend and Townsend and Crew LLP
      STREET: Two Embarcadero Center, Eighth Floor
;
      CITY: San Francisco
;
     STATE: California
     COUNTRY: USA
     ZIP: 94111-3834
    COMPUTER READABLE FORM:
;
     MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.30
;
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/900,321
     FILING DATE: 25-JUL-1997
     CLASSIFICATION: 530
;
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: US 08/212,190
;
      FILING DATE: 14-MAR-1994
;
    ATTORNEY/AGENT INFORMATION:
    NAME: Hunter, Tom
     REGISTRATION NUMBER: 38,498
     REFERENCE/DOCKET NUMBER: 015280-204100US
    TELECOMMUNICATION INFORMATION:
     TELEPHONE: (415) 576-0200
      TELEFAX: (415) 576-0300
  INFORMATION FOR SEQ ID NO: 8:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 10 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-900-321-8
  Query Match
                         76.2%; Score 32; DB 2; Length 10;
  Best Local Similarity 100.0%; Pred. No. 38;
           5; Conservative 0; Mismatches 0; Indels 0; Gaps
Qу
           3 PPPLP 7
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Db
           5 PPPLP 9
RESULT 12
US-08-899-595-8
; Sequence 8, Application US/08899595
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```
; Patent No. 6111072
 GENERAL INFORMATION:
    APPLICANT: Narumiya, Shuh
    APPLICANT: Takahashi, No. 6111072uaki
    TITLE OF INVENTION: RHO TARGET PROTEIN HUMAN MDIA AND GENE
    TITLE OF INVENTION: ENCODING SAME NUMBER OF SEQUENCES: 14
    CORRESPONDENCE ADDRESS:
     ADDRESSEE: Foley & Lardner
      STREET: 3000 K Street, N.W., Suite 500
      CITY: Washington
      STATE: D.C.
      COUNTRY: USA
      ZIP: 20007-5109
    COMPUTER READABLE FORM:
    MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/899,595
      FILING DATE: 24-JUL-1997
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: JP 8-242701
      FILING DATE: 26-AUG-1996
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: JP 9-90170
      FILING DATE: 25-MAR-1997
    ATTORNEY/AGENT INFORMATION:
    NAME: Stephen A. Bent
     REGISTRATION NUMBER: 29,768
      REFERENCE/DOCKET NUMBER: 049441/0112
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (202)672-5300
      TELEFAX: (202) 672-5399
      TELEX: 904136
  INFORMATION FOR SEQ ID NO: 8:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 10 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    FEATURE:
     NAME/KEY: Modified-site
      LOCATION: 10
      OTHER INFORMATION: /product= "G/S/A/V"
US-08-899-595-8
 Query Match
                         76.2%; Score 32; DB 3; Length 10;
 Best Local Similarity 100.0%; Pred. No. 38;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
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           3 PPPLP 7
Qу
            Db
           4 PPPLP 8
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RESULT 13
PCT-US95-03610-8
; Sequence 8, Application PC/TUS9503610
  GENERAL INFORMATION:
    APPLICANT:
    TITLE OF INVENTION: DNA ENCODING CAI RESISTANCE PROTEINS AND
    TITLE OF INVENTION: USES THEREOF
    NUMBER OF SEQUENCES: 10
    COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.25
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: PCT/US95/03610
       FILING DATE: 14-MAR-1995
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 08/212,190
       FILING DATE: 14-MAR-1994
    ATTORNEY/AGENT INFORMATION:
      NAME: Weber, Kenneth A.
       REGISTRATION NUMBER: 31,677
       REFERENCE/DOCKET NUMBER: 15280-204000PC
       REFERENCE/DOCKET NUMBER: DHHS Ref. No. E-112-94/0
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (415) 543-9600
       TELEFAX: (415) 543-5043
   INFORMATION FOR SEQ ID NO: 8:
    SEQUENCE CHARACTERISTICS:
       LENGTH: 10 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
PCT-US95-03610-8
  Query Match
                         76.2%; Score 32; DB 5; Length 10;
  Best Local Similarity 100.0%; Pred. No. 38;
  Matches
            5; Conservative 0; Mismatches
                                                0; Indels
                                                             0; Gaps
                                                                           0;
Qу
           3 PPPLP 7
             Db
           5 PPPLP 9
RESULT 14
US-08-336-343A-25
; Sequence 25, Application US/08336343A
; Patent No. 5677144
; GENERAL INFORMATION:
    APPLICANT: Ullrich, Axel
    APPLICANT: Alves, Frauke
     TITLE OF INVENTION: CCK-2, A No. 5677144el Receptor Tyrosine Kinase
    NUMBER OF SEQUENCES: 43
```

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CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
     MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/336,343A
      FILING DATE: 08-NOV-1994
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
     NAME: Coruzzi, Laura A.
     REGISTRATION NUMBER: 30,742
      REFERENCE/DOCKET NUMBER: 7683-065
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 25:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-336-343A-25
  Ouery Match
                         76.2%; Score 32; DB 1; Length 11;
 Best Local Similarity 100.0%; Pred. No. 41;
  Matches
           5; Conservative 0; Mismatches
                                                0; Indels 0; Gaps
                                                                            0;
Qу
           3 PPPLP 7
             Db
           4 PPPLP 8
RESULT 15
US-08-652-877-22
; Sequence 22, Application US/08652877
; Patent No. 6187548
; GENERAL INFORMATION:
    APPLICANT: Akerstrom, Goran
    APPLICANT: Juhlin, Claes
    APPLICANT: Rask, Lars
    APPLICANT: Crumley, Gregg R.
    APPLICANT: Morse, Clarence C. APPLICANT: Murray, Edward M.
    APPLICANT: Hjalm, Goran
;
    TITLE OF INVENTION: Human Calcium Sensor Protein, Fragments
    TITLE OF INVENTION: Thereof and DNA Encoding Same
   NUMBER OF SEQUENCES: 106
  CORRESPONDENCE ADDRESS:
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ADDRESSEE: Rhone-Poulenc Rorer Inc.
      STREET: 500 Arcola Rd., 3C43
      CITY: Collegeville
;
      STATE: PA
      COUNTRY: USA
      ZIP: 19426-0107
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: Macintosh
      OPERATING SYSTEM: System 7.5.1
      SOFTWARE: Word 6.0 (Patentin)
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/652,877
      FILING DATE:
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/US95/15203
      FILING DATE: 22-NOV-1995
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/344,836
      FILING DATE: 23-NOV-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/487,314
      FILING DATE: 07-JUNE-1995
    ATTORNEY/AGENT INFORMATION:
      NAME: Savitzky, Martin
      REGISTRATION NUMBER: 29,699
      REFERENCE/DOCKET NUMBER: A1355E-US
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 610-454-3816
      TELEFAX: 610-454-3808
  INFORMATION FOR SEQ ID NO: 22:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    HYPOTHETICAL: NO
    FRAGMENT TYPE: internal
US-08-652-877-22
 Query Match
                         76.2%; Score 32; DB 3; Length 11;
 Best Local Similarity 100.0%; Pred. No. 41;
 Matches 5; Conservative
                             0; Mismatches
                                              0; Indels 0; Gaps
                                                                          0;
          3 PPPLP 7
Qу
             4 PPPLP 8
RESULT 16
US-08-652-877-32
; Sequence 32, Application US/08652877
; Patent No. 6187548
; GENERAL INFORMATION:
    APPLICANT: Akerstrom, Goran
```

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APPLICANT: Juhlin, Claes
    APPLICANT: Rask, Lars
    APPLICANT: Crumley, Gregg R.
    APPLICANT: Morse, Clarence C.
    APPLICANT: Murray, Edward M.
    APPLICANT: Hjalm, Goran
    TITLE OF INVENTION: Human Calcium Sensor Protein, Fragments TITLE OF INVENTION: Thereof and DNA Encoding Same
;
    NUMBER OF SEQUENCES: 106
    CORRESPONDENCE ADDRESS:
;
    ADDRESSEE: Rhone-Poulenc Rorer Inc.
;
     STREET: 500 Arcola Rd., 3C43
;
      CITY: Collegeville
;
      STATE: PA
;
      COUNTRY: USA
      ZIP: 19426-0107
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: Macintosh
      OPERATING SYSTEM: System 7.5.1
;
      SOFTWARE: Word 6.0 (Patentin)
;
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/652,877
      FILING DATE:
;
      CLASSIFICATION: 435
;
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: PCT/US95/15203
       FILING DATE: 22-NOV-1995
;
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: US 08/344,836
       FILING DATE: 23-NOV-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/487,314
       FILING DATE: 07-JUNE-1995
    ATTORNEY/AGENT INFORMATION:
      NAME: Savitzky, Martin
      REGISTRATION NUMBER: 29,699
      REFERENCE/DOCKET NUMBER: A1355E-US
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 610-454-3816
       TELEFAX: 610-454-3808
   INFORMATION FOR SEQ ID NO: 32:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
     HYPOTHETICAL: NO
     FRAGMENT TYPE: internal
US-08-652-877-32
                          76.2%; Score 32; DB 3; Length 11;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 41;
  Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
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RESULT 17
US-08-476-515A-22
; Sequence 22, Application US/08476515A
; Patent No. 6239270
  GENERAL INFORMATION:
    APPLICANT: Akerstrom, Goran
    APPLICANT: Juhlin, Claes
    APPLICANT: Rask, Lars
    APPLICANT: Crumley, Gregg R.
    APPLICANT: Morse, Clarence C.
    APPLICANT: Murray, Edward M.
    APPLICANT: Hjalm, Goran
    TITLE OF INVENTION: Human Calcium Sensor Protein, Fragments
    TITLE OF INVENTION: Thereof and DNA Encoding Same
    NUMBER OF SEQUENCES: 84
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Martin Savitzky
      STREET: Rhone-Poulenc Rorer Inc., 500 Arcola Rd.;
      STREET: 3C43,
      CITY: Collegeville
      STATE: PA
      COUNTRY: USA
      ZIP: 19426-0107
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: Compaq PC
      OPERATING SYSTEM: Windows 95
      SOFTWARE: Word 7.0 (Patentin)
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/476,515A
      FILING DATE: 07-JUN-1995
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 08/344,836
      FILING DATE: 23-NOV-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: WO PCT/SE94/00483
      FILING DATE: 24-MAY-1994
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: SE 9301764-8
      FILING DATE: 24-MAY-1993
    ATTORNEY/AGENT INFORMATION:
             Savitzky, Martin
      NAME:
      REGISTRATION NUMBER: 29,699
      REFERENCE/DOCKET NUMBER: A1355D
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 610-454-3816
      TELEFAX: 610-454-3808
  INFORMATION FOR SEQ ID NO:
                              22:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
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TOPOLOGY: linear
    MOLECULE TYPE: peptide
     HYPOTHETICAL: NO
     FRAGMENT TYPE: internal
US-08-476-515A-22
  Query Match
                          76.2%; Score 32; DB 3; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 41;
  Matches 5; Conservative
                              0; Mismatches 0; Indels 0; Gaps
            3 PPPLP 7
Qу
              ++++
            4 PPPLP 8
RESULT 18
US-08-476-515A-32
; Sequence 32, Application US/08476515A
; Patent No. 6239270
  GENERAL INFORMATION:
    APPLICANT: Akerstrom, Goran
;
    APPLICANT: Juhlin, Claes
    APPLICANT: Rask, Lars
    APPLICANT: Crumley, Gregg R.
    APPLICANT: Morse, Clarence C.
;
    APPLICANT: Murray, Edward M.
    APPLICANT: Hjalm, Goran
;
    TITLE OF INVENTION: Human Calcium Sensor Protein, Fragments TITLE OF INVENTION: Thereof and DNA Encoding Same
;
;
    NUMBER OF SEQUENCES: 84
    CORRESPONDENCE ADDRESS:
       ADDRESSEE: Martin Savitzky
       STREET: Rhone-Poulenc Rorer Inc., 500 Arcola Rd.;
       STREET: 3C43,
       CITY: Collegeville
;
       STATE: PA
;
       COUNTRY: USA
;
       ZIP: 19426-0107
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
       COMPUTER: Compaq PC
;
       OPERATING SYSTEM: Windows 95
       SOFTWARE: Word 7.0 (Patentin)
     CURRENT APPLICATION DATA:
;
       APPLICATION NUMBER: US/08/476,515A
       FILING DATE: 07-JUN-1995
       CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: US 08/344,836
       FILING DATE: 23-NOV-1994
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: WO PCT/SE94/00483
       FILING DATE: 24-MAY-1994
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: SE 9301764-8
       FILING DATE: 24-MAY-1993
     ATTORNEY/AGENT INFORMATION:
```

```
NAME: Savitzky, Martin
      REGISTRATION NUMBER: 29,699
       REFERENCE/DOCKET NUMBER: A1355D
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: 610-454-3816
       TELEFAX: 610-454-3808
;
  INFORMATION FOR SEQ ID NO: 32:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 11 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: linear
    MOLECULE TYPE: peptide
    HYPOTHETICAL: NO
     FRAGMENT TYPE: internal
US-08-476-515A-32
 Query Match
                         76.2%; Score 32; DB 3; Length 11;
                         100.0%; Pred. No. 41;
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           5; Conservative
                               0; Mismatches
                                                0; Indels
 Matches
                                                               0; Gaps
                                                                           0;
           3 PPPLP 7
Qу
             4 PPPLP 8
RESULT 19
US-08-230-047-17
; Sequence 17, Application US/08230047
; Patent No. 5541109
  GENERAL INFORMATION:
    APPLICANT: Searfoss III, George H.
    APPLICANT: Ivashchenko, Yuri D.
    APPLICANT: Jaye, Michael C.
;
    TITLE OF INVENTION: EXPRESSION CLONING OF C-SRC SH3 BINDING
    TITLE OF INVENTION: PROTEIN
    NUMBER OF SEQUENCES: 40
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Rhone-Poulenc Rorer Inc.
       STREET: 500 Arcola Road, 3C43
      CITY: Collegeville
       STATE: PA
       COUNTRY: USA
       ZIP: 19426
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: Macintosh
       OPERATING SYSTEM: System 7.1
       SOFTWARE: Word 5.0 (PatentIn)
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/230,047
       FILING DATE: 19-APR-1994
       CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
       NAME: Goodman, Rosanne
       REGISTRATION NUMBER: 32,534
       REFERENCE/DOCKET NUMBER: A1465-US
```

```
TELECOMMUNICATION INFORMATION:
       TELEPHONE: (610) 454-3817
       TELEFAX: (610) 454-3808
  INFORMATION FOR SEQ ID NO: 17:
    SEQUENCE CHARACTERISTICS:
       LENGTH: 12 amino acids
       TYPE: amino acid
       TOPOLOGY: linear
    MOLECULE TYPE: peptide
US-08-230-047-17
  Query Match
                          76.2%; Score 32; DB 1; Length 12;
 Best Local Similarity 100.0%; Pred. No. 45;
           5; Conservative 0; Mismatches 0; Indels 0; Gaps
  Matches
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           3 PPPLP 7
Qу
             4 PPPLP 8
RESULT 20
US-08-602-999A-251
; Sequence 251, Application US/08602999A
; Patent No. 6184205
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
APPLICANT: QUILLIAM, Lawrence A.
APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
       ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999A
       FILING DATE: 16-FEB-1996
       CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
       REGISTRATION NUMBER: 18,872
       REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
```

```
TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 251:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 12 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-602-999A-251
  Query Match
                         76.2%; Score 32; DB 3; Length 12;
 Best Local Similarity 100.0%; Pred. No. 45;
 Matches 5; Conservative 0; Mismatches
                                                  0; Indels 0; Gaps
                                                                            0;
           3 PPPLP 7
Qу
             Db
           6 PPPLP 10
RESULT 21
US-08-602-999A-267
; Sequence 267, Application US/08602999A
; Patent No. 6184205
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A. APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
       STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999A
       FILING DATE: 16-FEB-1996
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
       REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
     TELECOMMUNICATION INFORMATION:
     TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
```

```
TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 267:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 12 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-602-999A-267
  Query Match
                        76.2%; Score 32; DB 3; Length 12;
 Best Local Similarity 100.0%; Pred. No. 45;
           5; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0;
Qv
           3 PPPLP 7
             Db
           6 PPPLP 10
RESULT 22
US-09-500-124-251
; Sequence 251, Application US/09500124
; Patent No. 6432920
; GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M. APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/09/500,124
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/602,999
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
     NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
```

```
TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 251:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 12 amino acids
       TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-09-500-124-251
  Query Match
                         76.2%; Score 32; DB 4; Length 12;
  Best Local Similarity 100.0%; Pred. No. 45;
  Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                             0;
           3 PPPLP 7
QУ
             11111
Db
           6 PPPLP 10
RESULT 23
US-09-500-124-267
; Sequence 267, Application US/09500124
; Patent No. 6432920
; GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
APPLICANT: QUILLIAM, Lawrence A.
APPLICANT: DER, Channing J.
;
    APPLICANT: FOWLKES, Dana M.
   APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
   NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
;
     ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/09/500,124
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: 08/602,999
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
     NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
```

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REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 267:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 12 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-09-500-124-267
  Query Match
                         76.2%; Score 32; DB 4; Length 12;
  Best Local Similarity 100.0%; Pred. No. 45;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                          0;
           3 PPPLP 7
Qу
             11111
Db
           6 PPPLP 10
RESULT 24
US-09-845-917A-13
; Sequence 13, Application US/09845917A
; Patent No. 6653529
; GENERAL INFORMATION:
; APPLICANT: Bogaert, Thierry
  APPLICANT: Vandekerckhove, Joel
  TITLE OF INVENTION: PROCESSES FOR THE IDENTIFICATION OF COMPOUNDS WHICH
  TITLE OF INVENTION: CONTROL CELL BEHAVIOUR, THE COMPOUNDS IDENTIFIED AND
  TITLE OF INVENTION: PHARMACEUTICAL COMPOSITIONS CONTIANING THEM AND THEIR
  TITLE OF INVENTION: USE IN THE CONTROL OF CELL BEHAVIOUR
; FILE REFERENCE: P/14-1
  CURRENT APPLICATION NUMBER: US/09/845,917A
  CURRENT FILING DATE: 2001-04-30
 NUMBER OF SEQ ID NOS: 58
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 13
   LENGTH: 13
   TYPE: PRT
   ORGANISM: Caenorhabditis elegans
US-09-845-917A-13
  Query Match
                         76.2%; Score 32; DB 4; Length 13;
  Best Local Similarity 100.0%; Pred. No. 49;
 Matches 5; Conservative 0; Mismatches
                                                 0; Indels
                                                                          0;
                                                               0; Gaps
Qу
           3 PPPLP 7
             -11111
Db
           5 PPPLP 9
RESULT 25
US-09-845-917A-14
; Sequence 14, Application US/09845917A
; Patent No. 6653529
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; GENERAL INFORMATION:
  APPLICANT: Bogaert, Thierry
  APPLICANT: Vandekerckhove, Joel
   TITLE OF INVENTION: PROCESSES FOR THE IDENTIFICATION OF COMPOUNDS WHICH
   TITLE OF INVENTION: CONTROL CELL BEHAVIOUR, THE COMPOUNDS IDENTIFIED AND
   TITLE OF INVENTION: PHARMACEUTICAL COMPOSITIONS CONTIANING THEM AND THEIR
   TITLE OF INVENTION: USE IN THE CONTROL OF CELL BEHAVIOUR
   FILE REFERENCE: P/14-1
  CURRENT APPLICATION NUMBER: US/09/845,917A
   CURRENT FILING DATE: 2001-04-30
  NUMBER OF SEQ ID NOS: 58
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 14
    LENGTH: 13
    TYPE: PRT
    ORGANISM: Caenorhabditis elegans
US-09-845-917A-14
  Query Match
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  Best Local Similarity 57.1%; Pred. No. 49;
            4; Conservative 2; Mismatches
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Qу
              : |||:|
Db
            3 LSPPPIP 9
RESULT 26
US-09-845-917A-19
; Sequence 19, Application US/09845917A
; Patent No. 6653529
; GENERAL INFORMATION:
  APPLICANT: Bogaert, Thierry
  APPLICANT: Vandekerckhove, Joel
   TITLE OF INVENTION: PROCESSES FOR THE IDENTIFICATION OF COMPOUNDS WHICH
  TITLE OF INVENTION: CONTROL CELL BEHAVIOUR, THE COMPOUNDS IDENTIFIED AND TITLE OF INVENTION: PHARMACEUTICAL COMPOSITIONS CONTIANING THEM AND THEIR TITLE OF INVENTION: USE IN THE CONTROL OF CELL BEHAVIOUR
; FILE REFERENCE: P/14-1
  CURRENT APPLICATION NUMBER: US/09/845,917A
   CURRENT FILING DATE: 2001-04-30
; NUMBER OF SEQ ID NOS: 58
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 19
   LENGTH: 13
    TYPE: PRT
    ORGANISM: Caenorhabditis elegans
US-09-845-917A-19
                           76.2%; Score 32; DB 4; Length 13;
  Query Match
                           100.0%; Pred. No. 49;
  Best Local Similarity
            5; Conservative
                                 0; Mismatches 0; Indels 0; Gaps
            3 PPPLP 7
Qу
              11111
            6 PPPLP 10
```

```
RESULT 27
US-09-845-917A-21
; Sequence 21, Application US/09845917A
; Patent No. 6653529
; GENERAL INFORMATION:
; APPLICANT: Bogaert, Thierry
; APPLICANT: Vandekerckhove, Joel
  TITLE OF INVENTION: PROCESSES FOR THE IDENTIFICATION OF COMPOUNDS WHICH
  TITLE OF INVENTION: CONTROL CELL BEHAVIOUR, THE COMPOUNDS IDENTIFIED AND
  TITLE OF INVENTION: PHARMACEUTICAL COMPOSITIONS CONTIANING THEM AND THEIR
; TITLE OF INVENTION: USE IN THE CONTROL OF CELL BEHAVIOUR
 FILE REFERENCE: P/14-1
  CURRENT APPLICATION NUMBER: US/09/845,917A
 CURRENT FILING DATE: 2001-04-30
; NUMBER OF SEQ ID NOS: 58
 SOFTWARE: PatentIn Ver. 2.1
; SEO ID NO 21
   LENGTH: 13
   TYPE: PRT
   ORGANISM: Caenorhabditis elegans
US-09-845-917A-21
 Query Match
                         76.2%; Score 32; DB 4; Length 13;
 Best Local Similarity 100.0%; Pred. No. 49;
 Matches
           5; Conservative
                              0; Mismatches 0; Indels 0; Gaps
                                                                           0;
           3 PPPLP 7
Qу
             +11111
Db
           5 PPPLP 9
RESULT 28
US-08-185-432-12
; Sequence 12, Application US/08185432
; Patent No. 5750652
  GENERAL INFORMATION:
    APPLICANT: Artavanis-Tsakonas, Spyridon
    APPLICANT: Busseau, Isabelle
    APPLICANT: Diederich, Robert J.
    APPLICANT: Xu, Tian
    APPLICANT: Matsuno, Kenji
    TITLE OF INVENTION: DELTEX PROTEINS, NUCLEIC ACIDS, AND
    TITLE OF INVENTION: ANTIBODIES, AND RELATED METHODS AND COMPOSITIONS
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: PENNIE & EDMONDS
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
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CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/185,432
       FILING DATE: 21-JAN-1994
      CLASSIFICATION: 530
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
       REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 7326-006
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (212) 790-9090
       TELEFAX: (212) 869-8864/9741
       TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 12:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 14 amino acids
      TYPE: amino acid
       TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-185-432-12
  Query Match
                         76.2%; Score 32; DB 1; Length 14;
  Best Local Similarity
                         100.0%; Pred. No. 52;
  Matches 5; Conservative 0; Mismatches
                                                   0; Indels
                                                                0;
                                                                    Gaps
                                                                             0;
           3 PPPLP 7
Qу
             11111
Dh
            4 PPPLP 8
RESULT 29
US-08-630-916A-63
; Sequence 63, Application US/08630916A
; Patent No. 6011137
  GENERAL INFORMATION:
     APPLICANT: Pirozzi, Gregorio
     APPLICANT: Kay, Brian K.
APPLICANT: Fowlkes, Dana M.
     TITLE OF INVENTION: IDENTIFICATION AND ISOLATION OF NOVEL
     TITLE OF INVENTION: POLYPEPTIDES HAVING WW DOMAINS AND METHODS OF USING
SAME
     NUMBER OF SEQUENCES: 124
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
       STREET: 1155 Avenue of the Americas
      CITY: New York
       STATE: New York
       COUNTRY: United States
       ZIP: 10036-2711
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/630,916A
      FILING DATE: 03-APR-1996
      CLASSIFICATION: 435
```

```
ATTORNEY/AGENT INFORMATION:
      NAME: MISROCK, S. LESLIE
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-203
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 896-8864/9741
  INFORMATION FOR SEQ ID NO: 63:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 14 amino acids
      TYPE: amino acid
      STRANDEDNESS:
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-630-916A-63
                         76.2%; Score 32; DB 3; Length 14;
 Query Match
  Best Local Similarity 100.0%; Pred. No. 52;
 Matches
           5; Conservative 0; Mismatches
                                                0; Indels 0; Gaps
                                                                           0;
Qу
           3 PPPLP 7
             Db
           5 PPPLP 9
RESULT 30
US-08-630-915A-186
; Sequence 186, Application US/08630915A
; Patent No. 6309820
; GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: HOFFMAN, No. 6309820h
    APPLICANT: KAY, Brian K.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: McCONNELL, Stephen J.
    TITLE OF INVENTION: POLYPEPTIDES HAVING A FUNCTIONAL
;
    TITLE OF INVENTION: DOMAIN OF INTEREST AND METHODS OF IDENTIFYING AND
;
    TITLE OF INVENTION: USING SAME
    NUMBER OF SEQUENCES: 227
    CORRESPONDENCE ADDRESS:
     ADDRESSEE: Pennie & Edmonds LLP
;
      STREET: 1155 Avenue of the Americas
      CITY: New York
;
      STATE: New York
;
      COUNTRY: USA
;
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/630,915A
      FILING DATE: 03-APR-1996
      CLASSIFICATION: 536
    ATTORNEY/AGENT INFORMATION:
     NAME: Misrock, S. Leslie
```

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REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-174
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (212) 790-9090
       TELEFAX: (212) 869-8864/9741
       TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 186:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 14 amino acids
      TYPE: amino acid
       STRANDEDNESS:
      TOPOLOGY: unknown
     MOLECULE TYPE: peptide
US-08-630-915A-186
  Query Match
                         76.2%; Score 32; DB 4; Length 14;
  Best Local Similarity 100.0%; Pred. No. 52;
           5; Conservative 0; Mismatches
                                                 0; Indels 0; Gaps
  Matches
                                                                             0;
           3 PPPLP 7
Qу
             Db
            5 PPPLP 9
RESULT 31
US-08-185-432-10
; Sequence 10, Application US/08185432
; Patent No. 5750652
; GENERAL INFORMATION:
    APPLICANT: Artavanis-Tsakonas, Spyridon
    APPLICANT: Busseau, Isabelle
    APPLICANT: Diederich, Robert J.
    APPLICANT: Xu, Tian
    APPLICANT: Matsuno, Kenji
    TITLE OF INVENTION: DELTEX PROTEINS, NUCLEIC ACIDS, AND TITLE OF INVENTION: ANTIBODIES, AND RELATED METHODS AND COMPOSITIONS
   NUMBER OF SEQUENCES: 23
;
   CORRESPONDENCE ADDRESS:
     ADDRESSEE: PENNIE & EDMONDS
     STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/185,432
       FILING DATE: 21-JAN-1994
      CLASSIFICATION: 530
    ATTORNEY/AGENT INFORMATION:
     NAME: Misrock, S. Leslie
     REGISTRATION NUMBER: 18,872
     REFERENCE/DOCKET NUMBER: 7326-006
```

```
TELECOMMUNICATION INFORMATION:
;
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-8864/9741
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 10:
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-185-432-10
 Query Match
                         76.2%; Score 32; DB 1; Length 15;
 Best Local Similarity 100.0%; Pred. No. 56;
 Matches 5; Conservative
                             0; Mismatches
                                                 0; Indels 0; Gaps
                                                                          0;
           3 PPPLP 7
Qу
             Db
           5 PPPLP 9
RESULT 32
US-08-769-745-31
; Sequence 31, Application US/08769745
; Patent No. 5955259
; GENERAL INFORMATION:
; APPLICANT: Holmes, Todd C.
  APPLICANT: Levitan, Irwin B.
; APPLICANT: Brandeis University
  TITLE OF INVENTION: Mechanism for the Regulation of Ion
  TITLE OF INVENTION: Channel Activity
; FILE REFERENCE: BRU96-02
; CURRENT APPLICATION NUMBER: US/08/769,745
; CURRENT FILING DATE: 1996-12-19
; NUMBER OF SEQ ID NOS: 41
  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 31
   LENGTH: 15
   TYPE: PRT
   ORGANISM: Homo sapien
US-08-769-745-31
 Query Match
                         76.2%; Score 32; DB 2; Length 15;
 Best Local Similarity 100.0%; Pred. No. 56;
 Matches 5; Conservative
                             0; Mismatches
                                                 0; Indels 0; Gaps
                                                                          0;
           3 PPPLP 7
Qу
             11111
Db
           4 PPPLP 8
RESULT 33
US-08-602-999A-356
; Sequence 356, Application US/08602999A
; Patent No. 6184205
; GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
```

```
APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
  NUMBER OF SEQUENCES: 467
   CORRESPONDENCE ADDRESS:
    ADDRESSEE: Pennie & Edmonds
     STREET: 1155 Avenue of the Americas
      CITY: New York
     STATE: New York
     COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
     MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
   CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/602,999A
     FILING DATE: 16-FEB-1996
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
    NAME: Misrock, S. Leslie
     REGISTRATION NUMBER: 18,872
     REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
     TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 356:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-602-999A-356
  Query Match
                        76.2%; Score 32; DB 3; Length 15;
  Best Local Similarity 100.0%; Pred. No. 56;
  Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                         0;
           3 PPPLP 7
Qу
            Db
           7 PPPLP 11
RESULT 34
US-08-602-999A-385
; Sequence 385, Application US/08602999A
; Patent No. 6184205
; GENERAL INFORMATION:
   APPLICANT: SPARKS, Andrew B.
   APPLICANT: KAY, Brian K.
```

```
APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
     ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
    MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
   CURRENT APPLICATION DATA:
    APPLICATION NUMBER: US/08/602,999A
     FILING DATE: 16-FEB-1996
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
    NAME: Misrock, S. Leslie
     REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 385:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-602-999A-385
 Query Match
                        76.2%; Score 32; DB 3; Length 15;
 Best Local Similarity 100.0%; Pred. No. 56;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                          0;
          3 PPPLP 7
Qу
            1111
Db
           7 PPPLP 11
RESULT 35
US-08-602-999A-404
; Sequence 404, Application US/08602999A
; Patent No. 6184205
; GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
```

```
APPLICANT: QUILLIAM, Lawrence A.
  . APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999A
      FILING DATE: 16-FEB-1996
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 404:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-602-999A-404
  Query Match
                         76.2%; Score 32; DB 3; Length 15;
  Best Local Similarity 100.0%; Pred. No. 56;
 Matches
           5; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                            0;
            3 PPPLP 7
Qу
             -11111
Db
            4 PPPLP 8
RESULT 36
US-08-602-999A-414
; Sequence 414, Application US/08602999A
; Patent No. 6184205
; GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
```

```
APPLICANT: DER, Channing J.
     APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
     TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
     TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
       STREET: 1155 Avenue of the Americas
      CITY: New York
       STATE: New York
      COUNTRY: U.S.A.
       ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999A
       FILING DATE: 16-FEB-1996
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (212) 790-9090
       TELEFAX: (212) 869-9741/8864
       TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 414:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-602-999A-414
  Query Match
                         76.2%; Score 32; DB 3; Length 15;
  Best Local Similarity 100.0%; Pred. No. 56;
  Matches
           5; Conservative
                               0; Mismatches
                                                0; Indels 0; Gaps
                                                                            0;
           3 PPPLP 7
Qу
             11111
Db
           4 PPPLP 8
RESULT 37
US-08-602-999A-435
; Sequence 435, Application US/08602999A
; Patent No. 6184205
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
```

```
APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
;
      ADDRESSEE: Pennie & Edmonds
;
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
;
      COUNTRY: U.S.A.
;
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
;
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999A
      FILING DATE: 16-FEB-1996
;
      CLASSIFICATION: 435
;
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (212) 790-9090
       TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 435:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-602-999A-435
                         76.2%; Score 32; DB 3; Length 15;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 56;
           5; Conservative 0; Mismatches
                                                0; Indels 0; Gaps
           3 PPPLP 7
Qу
             11111
Db
           4 PPPLP 8
RESULT 38
US-08-602-999A-436
; Sequence 436, Application US/08602999A
; Patent No. 6184205
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
```

```
APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
       STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
       ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999A
      FILING DATE: 16-FEB-1996
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
;
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
       TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 436:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-602-999A-436
  Query Match
                         76.2%; Score 32; DB 3; Length 15;
  Best Local Similarity
                         57.1%; Pred. No. 56;
  Matches
         4; Conservative 2; Mismatches 1; Indels 0; Gaps
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Qy
           1 MQPPPLP 7
             : |||:|
Db
           2 LSPPPIP 8
RESULT 39
US-08-602-999A-441
; Sequence 441, Application US/08602999A
; Patent No. 6184205
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
;
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
```

```
TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
       STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/602,999A
      FILING DATE: 16-FEB-1996
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (212) 790-9090
       TELEFAX: (212) 869-9741/8864
       TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 441:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-602-999A-441
  Query Match
                         76.2%; Score 32; DB 3; Length 15;
  Best Local Similarity 100.0%; Pred. No. 56;
  Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                            0;
           3 PPPLP 7
Qу
             Db
           5 PPPLP 9
RESULT 40
US-08-602-999A-452
; Sequence 452, Application US/08602999A
; Patent No. 6184205
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K. APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
```

```
TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999A
      FILING DATE: 16-FEB-1996
      CLASSIFICATION: 435
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 452:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-602-999A-452
                         76.2%; Score 32; DB 3; Length 15;
  Query Match
  Best Local Similarity
                         100.0%; Pred. No. 56;
 Matches
           5; Conservative 0; Mismatches
                                               0; Indels 0; Gaps
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           3 PPPLP 7
Qу
            -1111
Db
           7 PPPLP 11
RESULT 41
US-09-500-124-356
; Sequence 356, Application US/09500124
; Patent No. 6432920
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
```

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NUMBER OF SEQUENCES: 467
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/500,124
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/602,999
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 356:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-09-500-124-356
  Query Match
                         76.2%; Score 32; DB 4; Length 15;
  Best Local Similarity
                         100.0%; Pred. No. 56;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0;
Qy
           3 PPPLP 7
             11111
           7 PPPLP 11
RESULT 42
US-09-500-124-385
; Sequence 385, Application US/09500124
; Patent No. 6432920
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
```

```
TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/500,124
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/602,999
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 385:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-09-500-124-385
 Query Match
                         76.2%; Score 32; DB 4; Length 15;
 Best Local Similarity 100.0%; Pred. No. 56;
 Matches
           5; Conservative
                              0; Mismatches
                                                0; Indels 0; Gaps
                                                                           0;
           3 PPPLP 7
Qу
             11111
Db
           7 PPPLP 11
RESULT 43
US-09-500-124-404
; Sequence 404, Application US/09500124
; Patent No. 6432920
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
```

```
APPLICANT: FOWLKES, Dana M.
     APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
     TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
       ADDRESSEE: Pennie & Edmonds
       STREET: 1155 Avenue of the Americas
      CITY: New York
       STATE: New York
       COUNTRY: U.S.A.
       ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/500,124
       FILING DATE:
       CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/602,999
       FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
       REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (212) 790-9090
       TELEFAX: (212) 869-9741/8864
       TELEX: 66141 PENNIE
   INFORMATION FOR SEO ID NO: 404:
    SEQUENCE CHARACTERISTICS:
       LENGTH: 15 amino acids
       TYPE: amino acid
       TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-09-500-124-404
  Query Match
                         76.2%; Score 32; DB 4; Length 15;
  Best Local Similarity 100.0%; Pred. No. 56;
                              0; Mismatches
 Matches 5; Conservative
                                                  0; Indels 0; Gaps
                                                                           0;
Qу
           3 PPPLP 7
             Db
           4 PPPLP 8
RESULT 44
US-09-500-124-414
; Sequence 414, Application US/09500124
; Patent No. 6432920
; GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
```

```
APPLICANT: QUILLIAM, Lawrence A.
  . APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
;
     ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
;
      ZIP: 10036-2711
;
    COMPUTER READABLE FORM:
     MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
;
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/500,124
;
      FILING DATE:
;
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/602,999
;
      FILING DATE: 16-FEB-1996
;
    ATTORNEY/AGENT INFORMATION:
     NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
;
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 414:
    SEQUENCE CHARACTERISTICS:
;
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-09-500-124-414
 Query Match
                         76.2%; Score 32; DB 4; Length 15;
 Best Local Similarity 100.0%; Pred. No. 56;
 Matches
           5; Conservative
                              0; Mismatches
                                               0; Indels 0; Gaps
                                                                           0;
           3 PPPLP 7
Qу
             Db
           4 PPPLP 8
RESULT 45
US-09-500-124-435
; Sequence 435, Application US/09500124
; Patent No. 6432920
; GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
```

```
APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
     ADDRESSEE: Pennie & Edmonds
     STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
     MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/09/500,124
     FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: 08/602,999
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
    NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 435:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-09-500-124-435
 Query Match
                         76.2%; Score 32; DB 4; Length 15;
 Best Local Similarity 100.0%; Pred. No. 56;
 Matches 5; Conservative 0; Mismatches
                                                  0; Indels 0; Gaps
                                                                            0;
Qу
           3 PPPLP 7
             4 PPPLP 8
Db
RESULT 46
US-09-500-124-436
; Sequence 436, Application US/09500124
; Patent No. 6432920
```

```
GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
   NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
    ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/09/500,124
     FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
    APPLICATION NUMBER: 08/602,999
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
    NAME: Misrock, S. Leslie
     REGISTRATION NUMBER: 18,872
     REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 436:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-09-500-124-436
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  Best Local Similarity 57.1%; Pred. No. 56;
 Matches
           4; Conservative 2; Mismatches 1; Indels 0; Gaps
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           1 MQPPPLP 7
Qу
            : |||:|
Db
           2 LSPPPIP 8
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RESULT 47 US-09-500-124-441

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; Sequence 441, Application US/09500124
; Patent No. 6432920
   GENERAL INFORMATION:
     APPLICANT: SPARKS, Andrew B.
     APPLICANT: KAY, Brian K.
     APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A. APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
;
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/500,124
;
      FILING DATE:
      CLASSIFICATION:
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/602,999
;
       FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
     MOLECULE TYPE: peptide
US-09-500-124-441
  Query Match
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                         100.0%; Pred. No. 56;
  Best Local Similarity
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Qу
           3 PPPLP 7
             Db
           5 PPPLP 9
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RESULT 48
US-09-500-124-452
; Sequence 452, Application US/09500124
; Patent No. 6432920
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/500,124
      FILING DATE:
;
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 08/602,999
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 452:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-09-500-124-452
  Query Match
                         76.2%; Score 32; DB 4; Length 15;
  Best Local Similarity
                         100.0%; Pred. No. 56;
  Matches
          5; Conservative 0; Mismatches
                                                  0; Indels
                                                                0; Gaps
                                                                           0;
           3 PPPLP 7
Qy
             Db
           7 PPPLP 11
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```
RESULT 49
US-08-185-432-9
; Sequence 9, Application US/08185432
; Patent No. 5750652
  GENERAL INFORMATION:
    APPLICANT: Artavanis-Tsakonas, Spyridon
    APPLICANT: Busseau, Isabelle
    APPLICANT: Diederich, Robert J.
    APPLICANT: Xu, Tian
    APPLICANT: Matsuno, Kenji
    TITLE OF INVENTION: DELTEX PROTEINS, NUCLEIC ACIDS, AND
    TITLE OF INVENTION: ANTIBODIES, AND RELATED METHODS AND COMPOSITIONS
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: PENNIE & EDMONDS
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/185,432
      FILING DATE: 21-JAN-1994
      CLASSIFICATION: 530
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 7326-006
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-8864/9741
      TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 9:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 16 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
     MOLECULE TYPE: peptide
US-08-185-432-9 ·
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  Best Local Similarity
                         100.0%; Pred. No. 59;
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  Matches
           5; Conservative
                                                0; Indels 0; Gaps
           3 PPPLP 7
Qу
             6 PPPLP 10
Db
```

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US-08-185-432-14
; Sequence 14, Application US/08185432
; Patent No. 5750652
  GENERAL INFORMATION:
    APPLICANT: Artavanis-Tsakonas, Spyridon
    APPLICANT: Busseau, Isabelle APPLICANT: Diederich, Robert J.
    APPLICANT: Xu, Tian
    APPLICANT: Matsuno, Kenji
    TITLE OF INVENTION: DELTEX PROTEINS, NUCLEIC ACIDS, AND
    TITLE OF INVENTION: ANTIBODIES, AND RELATED METHODS AND COMPOSITIONS
    NUMBER OF SEQUENCES: 23
    CORRESPONDENCE ADDRESS:
     ADDRESSEE: PENNIE & EDMONDS
     STREET: 1155 Avenue of the Americas
     CITY: New York
     STATE: New York
     COUNTRY: U.S.A.
      ZIP: 10036-2711
;
    COMPUTER READABLE FORM:
     MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/185,432
      FILING DATE: 21-JAN-1994
      CLASSIFICATION: 530
    ATTORNEY/AGENT INFORMATION:
    NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 7326-006
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-8864/9741
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 14:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 16 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-08-185-432-14
  Query Match
                         76.2%; Score 32; DB 1; Length 16;
  Best Local Similarity 100.0%; Pred. No. 59;
  Matches 5; Conservative 0; Mismatches
                                                0; Indels 0; Gaps
                                                                           0;
           3 PPPLP 7
Qy
             +++++
            6 PPPLP 10
Db
Search completed: July 4, 2004, 04:48:43
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Job time : 5.38806 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: July 4, 2004, 04:35:16; Search time 5.3806 Seconds

(without alignments)

125.142 Million cell updates/sec

Title: US-09-641-802-1

Perfect score: 42

Sequence: 1 MQPPPLP 7

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283366 seqs, 96191526 residues

Total number of hits satisfying chosen parameters: 2898

Minimum DB seq length: 7
Maximum DB seq length: 18

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database: PIR 78:*

1: pir1:*

2: pir2:*

3: pir3:*

4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

					DOLLEGILL	
Result		8				
No.	Score	Query Match	Length	DB	ID	Description
1	32	76.2	18	2	PC2280	prolylendopeptidas
2	27	64.3	15	2	B39109	hypothetical 1.5K
3	26	61.9	7	2	S71299	ICL2 protein - Par
4	25	59.5	10	2	A36454	trypsin-modulating
5	25	59.5	13	2	A60856	inhibin alpha chai
6	25	59.5	13	2	S09716	2S albumin large c
7	25	59.5	14	2	S11129	phosphoprotein, bo
8	25	59.5	15	2	PT0037	light harvesting c
9	25	59.5	16	2	E58503	superoxide dismuta
10	25	59.5	17	2	S57991	hydroxyproline-ric
11	24	57.1	11	2	I33098	173K exoantigen -
12	23	54.8	11	1	XAVIBH	bradykinin-potenti
13	23	54.8	13	2	S21152	tryptophyllin-rela

14	23	54.8	13	2	A05174	
15	23	54.8	17	2	S59481	
16	22	52.4	12	2	PA0098	
17	22	52.4	15	2	B35389	
18	22	52.4	17	2	A49237	
19	22	52.4	18	2	152614	
20	22	52.4	18	2	A54195	
21	21	50.0	11	2	D45900	
22	21	50.0	12	2	PN0663	
23	21	50.0	12	2	B39690	
24	21	50.0	13	2	D39690	
25	21	50.0	14	2	S12904	
26	21	50.0	15	2	PQ0545	
27	21	50.0	16	2	JH0517	
28	20	47.6	10	2	H28027	
29	20	47.6	13	2	A40207	
30	20	47.6	15	2	S67918	
31	20	47.6	15	2	PA0002	
32	19.5	46.4	14	2	H64008	
33	19	45.2	7	2	PT0283	
34	19	45.2	10	2	B59272	
35	19	45.2	11	1	XASNBA	
36	19	45.2	11	2	YHRT	
37	19	45.2	11	2	YHHU	
38	19	45.2	11	2	YHBO	
39	19	45.2	11	2	YHXAE	
40	19	45.2	11	2	YHJFHY	
41	19	45.2	11	2	C37196	
42	19	45.2	11	2	D37196	
43	19	45.2	13	2	G61458	
44	19	45.2	13	2	A86126	
45	19	45.2	15	2	PA0088	
46	19	45.2	15	2	A60221	
47	19	45.2	16	2	C49048	
48	19	45.2	17	2	149593	
49	19	45.2	17	2	I84733	
50	19	45.2	17	2	S05033	
51	19	45.2	17	2	PT0235	
52	19	45.2	17	2	S10786	
53	19	45.2	17	2	B25348	
54	18	42.9	8	2	B39745	
55	18	42.9	8	2	S10783	
56	18	42.9	9	2	B41983	
57	18	42.9	10	2	PC2171	
58	18	42.9	10	2	C39745	
59	18	42.9	11	2	s07203	
60	18	42.9	13	2	184603	
61	18	42.9	14	2	B60683	
62	18	42.9	15	2	A35232	
63	18	42.9	15	2	S27248	
64	18	42.9	15	2	PA0060	
65	18	42.9	15	2	B61457	
66	18	42.9	16	2	I57530	
67	18	42.9	16	2	PH1302	
68	18	42.9	16	2	S57517	
69	18	42.9	16	2	JT0609	
70	18	42.9	17	2	s33609	

hydroxyproline-ric ribosomal protein urease (EC 3.5.1.5 45/47K antigen - M u-plasminogen acti Na+/K+-exchanging complement C3b rec dystrophin-associa neural cell adhesi neural cell adhesi protein kinase (EC capsid protein VP1 insulin-like growt protein P11 - curl cell surface glyco serine proteinase photosystem II oxy hypothetical prote Ig heavy chain CRD peptide-N4-(N-acet bradykinin-potenti morphogenetic neur morphogenetic neur morphogenetic neur morphogenetic neur morphogenetic neur bradykinin-potenti bradykinin-potenti Iq lambda chain Vhypothetical prote protein QF200051 apolipoprotein A-I T-cell receptor be cystic fibrosis tr gene CFTR protein photosystem II pro Ig heavy chain CRD enamelin, 26K - bo glycogen(starch) s endoglycosylcerami enamelin f - bovin orf dowstream to b triacylglycerol li sphingomyelinase uperolein - frog (deoxynucleotidyltr malate dehydrogena gentisate 1,2-diox pseudogermin - whe protein QF200037 alpha-glucosidase gene c-fms protein Ig heavy chain DJ T cell receptor be leukocyte chemoatt extensin - maize (

tryptophyllin-13 -

71	18	42.9	17	2	A42920	fatty acid ethyl e
72	18	42.9	18	2	S04229	N4-(beta-N-acetylg
73	17	40.5	9	2	S26508	collagen alpha 2(V
74	17	40.5	10	2	н37196	bradykinin-potenti
75	17	40.5	11	2	D60409	kassinin-like pept
76	17	40.5	11	2	F60409	substance P-like p
77	17	40.5	11	2	E60409	substance P-like p
78	17	40.5	11	2	B60409	kassinin-like pept
79	17	40.5	11	2	C60409	kassinin-like pept
80	17	40.5	11	2	D56979	collagen alpha 1(I
81	17	40.5	12	2	S07436	tachykinin - Afric
82	17	40.5	12	2	s70337	napin small chain
83	17	40.5	15	2	A60929	dichloromethane de
84	17	40.5	15	2	B60929	dichloromethane de
85	17	40.5	15	2	PA0014	seed storage prote
86	17	40.5	15	2	PN0173	seed storage prote
87	17	40.5	15	2	PA0071	superoxide dismuta
88	17	40.5	18	2	C56211	progesterone recep
89	17	40.5	18	2	A40760	basic fibroblast g
90	16	38.1	8	2	PT0559	T-cell receptor be
91	16	38.1	10	1	XAVI6B	angiotensin-conver
92	16	38.1	10	2	B37196	bradykinin-potenti
93	16	38.1	11	2	C61497	seed protein ws-18
94	16	38.1	11	2	PH1583	Ig H chain V-D-J r
95	16	38.1	11	2	PN0042	stathmin - mouse (
96	16	38.1	11	2	152304	gene rSSTR4 protei
97	16	38.1	12	2	E45691	probable minor cap
98	16	38.1	12	2	JU0356	cycloleonurinin -
99	16	38.1	12	2	PQ0786	NADH2 dehydrogenas
100	16	38.1	14	2	A61002	photosystem II oxy

ALIGNMENTS

```
RESULT 1
PC2280
prolylendopeptidase-inhibiting peptide - bovine (fragment)
C; Species: Bos primigenius taurus (cattle)
C;Date: 28-Feb-1995 #sequence_revision 05-Apr-1995 #text_change 09-May-1997
C; Accession: PC2280
R;Ohmori, T.; Nakagami, T.; Tanaka, H.; Maruyama, S.
Biochem. Biophys. Res. Commun. 202, 809-815, 1994
A; Title: Isolation of prolylendopeptidase-inhibiting peptides from bovine brain.
A; Reference number: PC2280; MUID: 94324971; PMID: 8048952
A; Accession: PC2280
A; Molecule type: protein
A; Residues: 1-18 < OHM>
A; Experimental source: brain
C; Superfamily: cytoskeletal keratin
                          76.2%; Score 32; DB 2; Length 18;
  Query Match
                          100.0%; Pred. No. 31;
  Best Local Similarity
          5; Conservative 0; Mismatches 0; Indels 0; Gaps
            3 PPPLP 7
Qу
              +11111
```

```
RESULT 2
B39109
hypothetical 1.5K protein - hepatitis C virus
N; Alternate names: hypothetical protein 2
C; Species: hepatitis C virus
C; Date: 18-Oct-1991 #sequence revision 18-Oct-1991 #text change 07-May-1999
C; Accession: B39109; JQ1585
R; Han, J.H.; Shyamala, V.; Richman, K.H.; Brauer, M.J.; Irvine, B.; Urdea, M.S.;
Tekamp-Olson, P.; Kuo, G.; Choo, Q.L.; Houghton, M.
Proc. Natl. Acad. Sci. U.S.A. 88, 1711-1715, 1991
A; Title: Characterization of the terminal regions of hepatitis C viral RNA:
identification of conserved sequences in the 5' untranslated region and poly(A)
tails at the 3' end.
A; Reference number: A39109; MUID: 91156678; PMID: 1705704
A; Accession: B39109
A; Status: not compared with conceptual translation
A; Molecule type: mRNA
A; Residues: 1-15 <HAN>
A; Cross-references: GB:M58406
R; Kumar, U.; Cheng, D.; Thomas, H.; Monjardino, J.
J. Gen. Virol. 73, 1521-1525, 1992
A; Title: Cloning and sequencing of the structural region and expression of
putative core gene of hepatitis C virus from a British case of chronic sporadic
hepatitis.
A; Reference number: JQ1584; MUID: 92300349; PMID: 1318944
A; Accession: JQ1585
A; Molecule type: genomic RNA
A; Residues: 1-15 < KUM>
A; Experimental source: strain U.K.
  Query Match
                          64.3%; Score 27; DB 2; Length 15;
  Best Local Similarity
                          66.7%; Pred. No. 1.4e+02;
  Matches
            6; Conservative 1; Mismatches 0; Indels
                                                                  2; Gaps
                                                                              1;
            1 MQP--PPLP 7
Qу
              :11 1111
            4 VQPPGPPLP 12
Db
RESULT 3
s71299
ICL2 protein - Paramecium tetraurelia (fragment)
C; Species: Paramecium tetraurelia
C;Date: 11-Mar-1998 #sequence revision 17-Apr-1998 #text change 07-Dec-1999
C; Accession: S71299
R; Madeddu, L.; Klotz, C.; le Caer, J.P.; Beisson, J.
Eur. J. Biochem. 238, 121-128, 1996
A; Title: Characterization of centrin genes in Paramecium.
A; Reference number: S71298; MUID: 96248429; PMID: 8665928
A; Accession: S71299
A; Molecule type: protein
A; Residues: 1-7 <MAD>
A; Experimental source: strain d4-2
C; Genetics:
```

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A: Genetic code: SGC5
  Query Match
                          61.9%; Score 26; DB 2; Length 7;
                          100.0%; Pred. No. 2.8e+05;
  Best Local Similarity
            4; Conservative 0; Mismatches
  Matches
                                                   0;
                                                      Indels
                                                                  0; Gaps
                                                                              0;
Qу
            2 QPPP 5
              \Box\Box\Box
            2 QPPP 5
Db
RESULT 4
A36454
trypsin-modulating oostatic factor - yellow fever mosquito
C; Species: Aedes aegypti (yellow fever mosquito)
C; Date: 12-Apr-1991 #sequence revision 12-Apr-1991 #text change 24-May-1996
C; Accession: A36454; A61630
R; Borovsky, D.; Carlson, D.A.; Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.
FASEB J. 4, 3015-3020, 1990
A; Title: Mosquito oostatic factor: a novel decapeptide modulating trypsin-like
enzyme biosynthesis in the midgut.
A; Reference number: A36454; MUID: 90367888; PMID: 2394318
A; Accession: A36454
A; Molecule type: protein
A; Residues: 1-10 <BOR>
R; Borovsky, D.; Carlson, D.A.; Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.
Insect Biochem. Mol. Biol. 23, 703-712, 1993
A; Title: Mass spectrometry and characterization of Aedes aegypti trypsin
modulating oostatic factor (TMOF) and its analogs.
A; Reference number: A61630; MUID: 93357794; PMID: 8353526
A; Accession: A61630
A; Molecule type: protein
A; Residues: 1-10 <BO2>
A; Note: none of the amino acids is modified
C; Function:
A; Description: inhibits systhesis of trypsin- and chymotrypsin-like enzymes by
midgut epithelial cells
C; Keywords: hormone
  Query Match
                          59.5%; Score 25; DB 2; Length 10;
  Best Local Similarity
                          80.0%; Pred. No. 1.9e+02;
  Matches
                               0; Mismatches 1; Indels
             4; Conservative
                                                                  0; Gaps
                                                                              0;
            3 PPPLP 7
Qу
              1111
Dh
            5 PPPPP 9
RESULT 5
A60856
inhibin alpha chain - sheep (fragment)
C; Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Date: 30-Sep-1993 #sequence revision 30-Sep-1993 #text change 07-May-1999
C; Accession: A60856
R; Leversha, L.J.; Robertson, D.M.; de Vos, F.L.; Morgan, F.J.; Hearn, M.T.W.;
Wettenhall, R.E.H.; Findlay, J.K.; Burger, H.G.; de Kretser, D.M.
J. Endocrinol. 113, 213-221, 1987
```

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A:Title: Isolation of inhibin from ovine follicular fluid.
A; Reference number: A60856; MUID: 87224684; PMID: 3585232
A; Accession: A60856
A; Molecule type: protein
A; Residues: 1-13 <LEV>
C; Comment: Inhibin suppresses follicle-stimulating hormone secretion.
C; Superfamily: inhibin
C; Keywords: disulfide bond; glycoprotein; gonad; heterodimer; hormone
  Query Match
                          59.5%; Score 25; DB 2; Length 13;
  Best Local Similarity 100.0%; Pred. No. 2.5e+02;
  Matches
            4; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
            4 PPLP 7
Qу
              -1111
Db
            3 PPLP 6
RESULT 6
S09716
2S albumin large chain (1 and 2) nII - rape (fragments)
N; Alternate names: 2S albumin large chain nIII
C; Species: Brassica napus (rape)
C;Date: 13-Jan-1995 #sequence revision 13-Jan-1995 #text change 21-Aug-1998
C; Accession: S09716; S09718; S09717
R; Monsalve, R.I.; Menendez-Arias, L.; Lopez-Otin, C.; Rodriguez, R.
FEBS Lett. 263, 209-212, 1990
A; Title: beta-Turns as structural motifs for the proteolytic processing of seed
proteins.
A; Reference number: S09720; MUID: 90242974; PMID: 2185951
A; Accession: S09716
A; Molecule type: protein
A; Residues: 1-9;10-13 <MON>
A; Experimental source: seed
A; Note: 3-Ser was also found
A; Accession: S09718
A; Molecule type: protein
A; Residues: 1-9;10-13 <MO2>
A; Experimental source: seed
A; Accession: S09717
A; Molecule type: protein
A; Residues: 1-9;10-13 < MO3>
A; Experimental source: seed
                          59.5%; Score 25; DB 2; Length 13;
  Query Match
                          66.7%; Pred. No. 2.5e+02;
  Best Local Similarity
  Matches
             4; Conservative
                                 1; Mismatches
                                                  1; Indels
                                                                  0; Gaps
                                                                              0;
            2 QPPPLP 7
Qy
              :111
            7 RPPPGP 12
Db
RESULT 7
S11129
phosphoprotein, bone - chicken (fragment)
C; Species: Gallus gallus (chicken)
```

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C;Date: 18-Feb-1994 #sequence_revision 10-Nov-1995 #text_change 25-Oct-1996
C; Accession: S11129
R; Mikuni-Takagaki, Y.; Glimcher, M.J.
Biochem. J. 268, 585-591, 1990
A; Title: Post-translational processing of chicken bone phosphoproteins.
Identification of the bone phosphoproteins of embryonic tibia.
A; Reference number: S11127; MUID: 90303246; PMID: 2363696
A; Accession: S11129
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-14 <MIK>
C; Keywords: phosphoprotein
  Query Match
                          59.5%; Score 25; DB 2; Length 14;
  Best Local Similarity
                          100.0%; Pred. No. 2.7e+02;
 Matches
            4; Conservative
                               0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                              0;
            3 PPPL 6
Qу
             1111
            5 PPPL 8
Db
RESULT 8
PT0037
light harvesting complex chain III/b, photosystem I - rice (fragment)
C; Species: Oryza sativa (rice)
C; Date: 30-Sep-1991 #sequence revision 30-Sep-1991 #text change 18-Jun-1993
C; Accession: PT0037; PS0205
R; Uchiyama, Y.; Tsugita, A.
submitted to JIPID, June 1991
A: Reference number: PS0189
A; Accession: PT0037
A; Molecule type: protein
A; Residues: 1-15 <UCH>
                          59.5%; Score 25; DB 2; Length 15;
  Query Match
  Best Local Similarity
                          80.0%; Pred. No. 2.9e+02;
            4; Conservative 0; Mismatches 1; Indels
                                                                 0; Gaps
            3 PPPLP 7
Qу
              1111
Db
            8 PPPPP 12
RESULT 9
superoxide dismutase (EC 1.15.1.1) - unidentified bacterium (fragment)
N; Alternate names: 21.3K bladder and kidney stone protein
C; Species: unidentified bacterium
C; Date: 07-Feb-1997 #sequence revision 07-Feb-1997 #text change 05-Mar-1999
C; Accession: E58503
R; Binette, J.P.; Binette, M.B.
submitted to the Protein Sequence Database, October 1996
A; Description: The proteins of kidney and gallbladder stones.
A; Reference number: A58501
A; Accession: E58503
A; Status: preliminary
```

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A; Molecule type: protein
A; Residues: 1-16 <BIN>
A; Experimental source: human bladder and kidney stones
C; Function:
A; Description: catalyzes the dismutation of 2 molecules of peroxide radical to
dioxygen and hydrogen peroxide
C; Keywords: metalloprotein; oxidoreductase
  Query Match
                          59.5%; Score 25; DB 2; Length 16;
                          100.0%; Pred. No. 3.1e+02;
  Best Local Similarity
                                0; Mismatches
  Matches
            4; Conservative
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            4 PPLP 7
Qy
              6 PPLP 9
Db
RESULT 10
S57991
hydroxyproline-rich protein - Sesbania rostrata (fragment)
C; Species: Sesbania rostrata
C; Date: 13-Jan-1996 #sequence revision 01-Mar-1996 #text change 11-Jan-2000
C; Accession: S57991
R; Goormachtig, S.; Valerio-Lepiniec, M.; Szczyglowski, K.; van Montagu, M.;
Holsters, M.; de Bruijn, F.
submitted to the EMBL Data Library, March 1995
A; Description: Use of differential display to identify novel Sesbania rostrata
genes enhanced by Azorhizobium caulinodans infection.
A; Reference number: S57991
A; Accession: S57991
A; Status: preliminary
A; Molecule type: mRNA
A; Residues: 1-17 <GOO>
A; Cross-references: EMBL: Z48673; NID: g899484; PID: g899485
C; Superfamily: hydroxyproline-rich glycoprotein
                          59.5%; Score 25; DB 2; Length 17;
  Query Match
  Best Local Similarity
                          80.0%; Pred. No. 3.2e+02;
            4; Conservative
                                0; Mismatches
                                                                  0; Gaps
                                                                              0;
                                                  1; Indels
            3 PPPLP 7
Qу
              10 PPPPP 14
Db
RESULT 11
I33098
173K exoantigen - malaria parasite (Plasmodium falciparum) (fragments)
C; Species: Plasmodium falciparum
C;Date: 24-Aug-1990 #sequence revision 24-Aug-1990 #text change 09-Jun-2000
C; Accession: I33098
R; Nichols, J.H.; Hager, L.P.
submitted to the Protein Sequence Database, May 1990
A; Reference number: A33098
A; Accession: I33098
A; Status: preliminary
A; Molecule type: protein
```

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A; Residues: 1-11 <NIC>
  Query Match
                          57.1%; Score 24; DB 2; Length 11;
  Best Local Similarity
                          80.0%; Pred. No. 2.9e+02;
 Matches
            4; Conservative
                                0; Mismatches
                                                  1; Indels
                                                                 0; Gaps
                                                                              0;
            3 PPPLP 7
Qу
             -11 -11
Db
            3 PPELP 7
RESULT 12
XAVIBH
bradykinin-potentiating peptide - halys viper
N; Alternate names: BPP
C; Species: Agkistrodon halys (halys viper)
C;Date: 30-Sep-1988 #sequence revision 30-Sep-1988 #text change 05-Aug-1994
C; Accession: JC0002
R; Chi, C.W.; Wang, S.Z.; Xu, L.G.; Wang, M.Y.; Lo, S.S.; Huang, W.D.
Peptides 6, 339-342, 1985
A; Title: Structure-function studies on the bradykinin potentiating peptide from
Chinese snake venom (Agkistrodon halys Pallas).
A; Reference number: JC0002; MUID: 86177022; PMID: 3008123
A; Accession: JC0002
A; Molecule type: protein
A; Residues: 1-11 <CHI>
C; Comment: Because this peptide both inhibits the activity of the angiotensin-
converting enzyme and enhances the action of bradykinin, it is an
antihypertensive agent.
C; Superfamily: bradykinin-potentiating peptide
C; Keywords: angiotensin-converting enzyme inhibitor; antihypertensive;
bradykinin; pyroglutamic acid; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
  Query Match
                          54.8%; Score 23; DB 1; Length 11;
                          75.0%; Pred. No. 4.2e+02;
  Best Local Similarity
 Matches
            3; Conservative
                                1; Mismatches 0; Indels
                                                                 0; Gaps
                                                                              0;
            4 PPLP 7
Qу
              11:1
Db
            7 PPIP 10
RESULT 13
S21152
tryptophyllin-related peptide - two-colored leaf frog
C; Species: Phyllomedusa bicolor (two-colored leaf frog)
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 18-Aug-2000
C; Accession: S21152
R; Mignoqna, G.; Severini, C.; Simmaco, M.; Negri, L.; Falconieri Erspamer, G.;
Kreil, G.; Barra, D.
FEBS Lett. 302, 151-154, 1992
A; Title: Identification and characterization of two dermorphins from skin
extracts of the Amazonian frog Phyllomedusa bicolor.
A; Reference number: S21152; MUID: 92339502; PMID: 1633846
A; Accession: S21152
A; Molecule type: protein
```

```
A; Residues: 1-13 <MIG>
A; Experimental source: skin
C; Superfamily: unassigned animal peptides
  Query Match
                          54.8%; Score 23; DB 2; Length 13;
                          75.0%; Pred. No. 4.9e+02;
  Best Local Similarity
  Matches
           3; Conservative
                                1; Mismatches 0; Indels 0; Gaps
                                                                              0;
            3 PPPL 6
Qу
              111:
            7 PPPI 10
Db
RESULT 14
A05174
tryptophyllin-13 - Rohde's leaf frog
C; Species: Phyllomedusa rohdei (Rohde's leaf frog)
C; Date: 05-Jun-1987 #sequence revision 05-Jun-1987 #text change 18-Aug-2000
C; Accession: A05174
R; Montecucchi, P.C.; Gozzini, L.; Erspamer, V.
Int. J. Pept. Protein Res. 27, 175-182, 1986
A; Reference number: A05174
A; Accession: A05174
A; Molecule type: protein
A; Residues: 1-13 <MON>
C; Superfamily: unassigned animal peptides
C; Keywords: pyroglutamic acid; skin
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
  Query Match
                          54.8%; Score 23; DB 2; Length 13;
  Best Local Similarity 75.0%; Pred. No. 4.9e+02;
                                                                 0; Gaps
            3; Conservative 1; Mismatches 0; Indels
                                                                             0;
  Matches
            3 PPPL 6
Qу
             111:
Db
            7 PPPI 10
RESULT 15
S59481
hydroxyproline-rich cell wall glycoprotein, 230K - kidney bean (fragment)
C; Species: Phaseolus vulgaris (kidney bean)
C;Date: 27-Apr-1996 #sequence revision 19-Jul-1996 #text change 05-Dec-1998
C; Accession: S59481
R; Wojtaszek, P.; Trethowan, J.; Bolwell, G.P.
Plant Mol. Biol. 28, 1075-1087, 1995
A; Title: Specificity in the immobilisation of cell wall proteins in response to
different elicitor molecules in suspension-cultured cells of French bean
(Phaseolus vulgaris L.).
A; Reference number: $59481; MUID: 96011753; PMID: 7548825
A; Accession: S59481
A; Molecule type: protein
A; Residues: 1-17 <WOJ>
C; Keywords: glycoprotein; hydroxyproline
F; 6, 8, 9, 10, 11/Modified site: hydroxyproline (Pro) #status experimental
                          54.8%; Score 23; DB 2; Length 17;
  Query Match
```

```
Best Local Similarity 57.1%; Pred. No. 6.5e+02;
 Matches
           4; Conservative 1; Mismatches 2; Indels
                                                                 0; Gaps
                                                                             0;
           1 MOPPPLP 7
Qу
             1 11:1
            2 MYLPPVP 8
Db
RESULT 16
PA0098
ribosomal protein S3 - fungus (Fusarium sporotrichioides) (fragment)
C; Species: Fusarium sporotrichioides
C; Date: 20-Feb-1995 #sequence revision 20-Feb-1995 #text change 23-Mar-2001
C; Accession: PA0098
R; Chow, L.P.; Fukaya, N.; Sugiura, Y.; Ueno, Y.; Tabuchi, K.; Tsugita, A.
submitted to JIPID, October 1994
A; Description: Two dimensional polyacrylamide gel electropheresis of Fusarium
sporotrichisides proteins.
A; Reference number: PA0051
A; Accession: PA0098
A; Molecule type: protein
A; Residues: 1-12 <CHO>
  Query Match
                          52.4%; Score 22; DB 2; Length 12;
  Best Local Similarity 75.0%; Pred. No. 6.4e+02;
                               1; Mismatches
  Matches
            3; Conservative
                                                 0; Indels
                                                                 0; Gaps
                                                                             0;
            4 PPLP 7
Qу
              11:1
            4 PPVP 7
Db
RESULT 17
B35389
urease (EC 3.5.1.5) 15K chain - Morganella morganii (fragment)
C; Species: Morganella morganii
C;Date: 31-Aug-1990 #sequence_revision 31-Aug-1990 #text change 23-Jun-1993
C; Accession: B35389
R; Hu, L.T.; Nicholson, E.B.; Jones, B.D.; Lynch, M.J.; Mobley, H.L.T.
J. Bacteriol. 172, 3073-3080, 1990
A; Title: Morganella morganii urease: purification, characterization, and
isolation of gene sequences.
A; Reference number: A35389; MUID: 90264298; PMID: 2345135
A; Accession: B35389
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-15 < HUA>
C; Keywords: hydrolase
                          52.4%; Score 22; DB 2; Length 15;
  Query Match
  Best Local Similarity
                          80.0%; Pred. No. 8.1e+02;
            4; Conservative
  Matches
                                0; Mismatches 1; Indels
                                                                 0; Gaps
                                                                             0;
            2 QPPPL 6
Qу
              \mathbf{H}
Db
            5 QPTPL 9
```

```
RESULT 18
A49237
45/47K antigen - Mycobacterium bovis (fragment)
C; Species: Mycobacterium bovis
C;Date: 19-Dec-1993 #sequence revision 18-Nov-1994 #text change 24-Feb-1995
C; Accession: A49237
R; Romain, F.; Laqueyrerie, A.; Militzer, P.; Pescher, P.; Chavarot, P.;
Lagranderie, M.; Auregan, G.; Gheorghiu, M.; Marchal, G.
Infect. Immun. 61, 742-750, 1993
A; Title: Identification of a Mycobacterium bovis BCG 45/47-kilodalton antiqen
complex, an immunodominant target for antibody response after immunization with
living bacteria.
A; Reference number: A49237; MUID: 93138802; PMID: 8423100
A:Contents: BCG
A; Accession: A49237
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-17 < ROM>
A; Note: sequence extracted from NCBI backbone (NCBIP:123246)
                          52.4%; Score 22; DB 2; Length 17;
  Query Match
  Best Local Similarity
                          75.0%; Pred. No. 9.1e+02;
  Matches
             3; Conservative
                                 1; Mismatches
                                                  0; Indels
                                                                      Gaps
                                                                               0;
            4 PPLP 7
Qу
              ||:|
            6 PPVP 9
Db
RESULT 19
I52614
u-plasminogen activator receptor precursor - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 01-Nov-1996 #sequence revision 01-Nov-1996 #text change 21-Jul-2000
C; Accession: I52614
R; Soravia, E.; Grebe, A.; De Luca, P.; Helin, K.; Suh, T.T.; Degen, J.L.; Blasi,
Blood 86, 624-635, 1995
A; Title: A conserved TATA-less proximal promoter drives basal transcription from
the urokinase-type plasminogen activator receptor gene.
A; Reference number: I52614; MUID: 95329719; PMID: 7605992
A; Accession: I52614
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-18 < RES>
A;Cross-references: GB:S78532; NID:g999307; PIDN:AAD14289.1; PID:g4261989
C; Genetics:
A; Gene: uPAR
C; Superfamily: urokinase-type plasminogen activator receptor; Ly-6 homology
  Query Match
                          52.4%; Score 22; DB 2; Length 18;
  Best Local Similarity
                          80.0%; Pred. No. 9.7e+02;
             4; Conservative
  Matches
                                 0; Mismatches
                                                  1; Indels
                                                                  0; Gaps
                                                                               0;
Qу
            3 PPPLP 7
```

11 11

```
RESULT 20
A54195
Na+/K+-exchanging ATPase (EC 3.6.3.9) - spiny dogfish (fragment)
C; Species: Squalus acanthias (spiny dogfish)
C; Date: 13-Oct-1994 #sequence revision 18-Nov-1994 #text change 19-Apr-2002
C; Accession: A54195
R; Esmann, M.; Karlish, S.J.; Sottrup-Jensen, L.; Marsh, D.
Biochemistry 33, 8044-8050, 1994
A; Title: Structural integrity of the membrane domains in extensively trypsinized
Na, K-ATPase from shark rectal glands.
A; Reference number: A54195; MUID: 94297020; PMID: 8025109
A; Accession: A54195
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-18 <ESM>
A; Experimental source: rectal gland
A; Note: sequence extracted from NCBI backbone (NCBIP:149363)
C; Keywords: hydrolase
                          52.4%; Score 22; DB 2; Length 18;
  Query Match
  Best Local Similarity
                          60.0%; Pred. No. 9.7e+02;
                                                 1; Indels
             3; Conservative
                               1; Mismatches
                                                                  0; Gaps
                                                                              0;
  Matches
            1 MQPPP 5
Qv
              : 111
            6 LTPPP 10
Db
RESULT 21
D45900
complement C3b receptor type 2 - mouse (clone 12) (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 30-Sep-1993 #sequence revision 30-Sep-1993 #text change 07-May-1999
C; Accession: D45900
R; Kurtz, C.B.; O'Toole, E.; Christensen, S.M.; Weis, J.H.
J. Immunol. 144, 3581-3591, 1990
A; Title: The murine complement receptor gene family. IV. Alternative splicing of
Cr2 gene transcripts predicts two distinct gene products that share homologous
domains with both human CR2 and CR1.
A; Reference number: A45900; MUID: 90229754; PMID: 2139460
A; Accession: D45900
A; Status: preliminary; nucleic acid sequence not shown; not compared with
conceptual translation
A; Molecule type: mRNA
A; Residues: 1-11 <KUR>
                          50.0%; Score 21; DB 2; Length 11;
  Query Match
                          100.0%; Pred. No. 8.3e+02;
  Best Local Similarity
            3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                              0;
  Matches
            3 PPP 5
Qу
              \mathbf{H}
            9 PPP 11
Db
```

```
RESULT 22
PN0663
dystrophin-associated glycoprotein A3a-II - rabbit (fragment)
C; Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 19-May-1994 #sequence revision 19-May-1994 #text change 07-May-1999
C; Accession: PN0663
R; Yoshida, M.; Mizuno, Y.; Nonaka, I.; Ozawa, E.
J. Biochem. 114, 634-639, 1993
A; Title: A dystrophin-associated glycoprotein, A3a (one of 43DAG doublets), is
retained in Duchenne muscular dystrophy muscle.
A; Reference number: PN0662; MUID: 94156881; PMID: 8113213
A; Accession: PN0663
A; Molecule type: protein
A; Residues: 1-12 <YOS>
C; Comment: This protein is retained in Duchenne type muscular dystrophy muscle.
C; Keywords: glycoprotein; skeletal muscle
  Query Match
                           50.0%; Score 21; DB 2; Length 12;
                          100.0%; Pred. No. 9.1e+02;
  Best Local Similarity
  Matches
             3; Conservative 0; Mismatches 0; Indels
                                                                   0; Gaps
                                                                               0;
            3 PPP 5
Qу
              -111
            5 PPP 7
Db
RESULT 23
B39690
neural cell adhesion molecule, cardiac splice form +,-,- - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 24-Jan-1992 #sequence revision 24-Jan-1992 #text change 16-Jul-1999
C; Accession: B39690
R; Reyes, A.A.; Small, S.J.; Akeson, R.
Mol. Cell. Biol. 11, 1654-1661, 1991
A; Title: At least 27 alternatively spliced forms of the neural cell adhesion
molecule mRNA are expressed during rat heart development.
A; Reference number: A39690; MUID: 91141516; PMID: 1996115
A; Accession: B39690
A; Status: preliminary; nucleic acid sequence not shown; not compared with
conceptual translation
A; Molecule type: mRNA
A; Residues: 1-12 < REY>
A; Cross-references: GB:M63970
C; Keywords: cardiac muscle; cell adhesion; heart
  Query Match
                           50.0%; Score 21; DB 2; Length 12;
  Best Local Similarity
                          100.0%; Pred. No. 9.1e+02;
            3; Conservative 0; Mismatches
                                                                               0;
  Matches
                                                   0; Indels
                                                                   0; Gaps
            3 PPP 5
Qу
              \parallel \parallel \parallel \parallel
            6 PPP 8
Db
```

RESULT 24 D39690

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neural cell adhesion molecule, cardiac splice form +,-,-,+ - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 24-Jan-1992 #sequence revision 24-Jan-1992 #text change 16-Jul-1999
C; Accession: D39690
R; Reyes, A.A.; Small, S.J.; Akeson, R.
Mol. Cell. Biol. 11, 1654-1661, 1991
A; Title: At least 27 alternatively spliced forms of the neural cell adhesion
molecule mRNA are expressed during rat heart development.
A; Reference number: A39690; MUID: 91141516; PMID: 1996115
A; Accession: D39690
A; Status: preliminary; nucleic acid sequence not shown; not compared with
conceptual translation
A; Molecule type: mRNA
A; Residues: 1-13 < REY>
A:Cross-references: GB:M63970
C; Superfamily: neural cell adhesion molecule; fibronectin type III repeat
homology; immunoglobulin homology
C; Keywords: cardiac muscle; cell adhesion; heart
                          50.0%; Score 21; DB 2; Length 13;
  Query Match
                          100.0%; Pred. No. 9.8e+02;
  Best Local Similarity
  Matches
             3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                               0; Gaps
                                                                              0;
            3 PPP 5
Qу
              \perp
Db
            6 PPP 8
RESULT 25
S12904
protein kinase (EC 2.7.1.37) - starfish (Pisaster ochraceus)
C; Species: Pisaster ochraceus
C; Date: 19-Mar-1997 #sequence revision 19-Mar-1997 #text change 01-Aug-1997
C; Accession: S12904
R; Sanghera, J.S.; Aebersold, R.; Morrison, H.D.; Bures, E.J.; Pelech, S.L.
FEBS Lett. 273, 223-226, 1990
A; Title: Identification of the sites in myelin basic protein that are
phosphorylated by meiosis-activated protein kinase p44 (mpk).
A; Reference number: S12904; MUID: 91032186; PMID: 1699809
A; Accession: S12904
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-14 <SAN>
C; Keywords: phosphotransferase
  Query Match
                          50.0%; Score 21; DB 2; Length 14;
  Best Local Similarity
                          100.0%; Pred. No. 1.1e+03;
  Matches
             3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0;
            3 PPP 5
Qу
              \Pi\Pi
Db
            8 PPP 10
RESULT 26
PO0545
capsid protein VP19C - human herpesvirus 1 (fragment)
```

```
C; Species: human herpesvirus 1
C;Date: 03-Feb-1994 #sequence revision 03-Feb-1994 #text change 07-May-1999
C; Accession: PQ0545
R; Davison, M.D.; Rixon, F.J.; Davison, A.J.
J. Gen. Virol. 73, 2709-2713, 1992
A; Title: Identification of genes encoding two capsid proteins (VP24 and VP26) of
herpes simplex virus type 1.
A; Reference number: PQ0544; MUID: 93019027; PMID: 1328483
A; Accession: PQ0545
A; Molecule type: protein
A; Residues: 1-15 < DAV>
A; Experimental source: strain 17
C; Genetics:
A; Gene: UL38
C; Keywords: capsid protein
  Query Match
                          50.0%; Score 21; DB 2; Length 15;
  Best Local Similarity 57.1%; Pred. No. 1.1e+03;
 Matches
            4; Conservative 1; Mismatches
                                                  2; Indels
                                                                 0; Gaps
                                                                             0;
            1 MQPPPLP 7
Qу
             1: 111
Db
            1 MKTNPLP 7
RESULT 27
JH0517
insulin-like growth factor-binding protein 4 - pig (fragment)
C; Species: Sus scrofa domestica (domestic pig)
C; Date: 31-Mar-1992 #sequence revision 31-Mar-1992 #text change 03-Nov-2003
C; Accession: JH0517
R; Coleman, M.E.; Pan, Y.C.E.; Etherton, T.D.
Biochem. Biophys. Res. Commun. 181, 1131-1136, 1991
A; Title: Identification and NH2-terminal amino acid sequence of three insulin-
like growth factor-binding proteins in porcine serum.
A; Reference number: JH0515; MUID: 92109718; PMID: 1722398
A; Accession: JH0517
A; Molecule type: protein
A; Residues: 1-16 <COL>
A; Experimental source: serum
C; Superfamily: insulin-like growth factor binding protein; thyroglobulin type I
repeat homology
  Query Match
                          50.0%; Score 21; DB 2; Length 16;
                          100.0%; Pred. No. 1.2e+03;
  Best Local Similarity
  Matches
           3; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                              0;
            3 PPP 5
Qу
             \Box\Box
            7 PPP 9
Db
RESULT 28
H28027
protein P11 - curled-leaved tobacco (fragment)
C; Species: Nicotiana plumbaginifolia (curled-leaved tobacco)
C;Date: 19-May-1989 #sequence_revision 19-May-1989 #text_change 18-Jun-1993
```

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C:Accession: H28027
R; Bauw, G.; De Loose, M.; Inze, D.; Van Montagu, M.; Vandekerckhove, J.
Proc. Natl. Acad. Sci. U.S.A. 84, 4806-4810, 1987
A; Title: Alterations in the phenotype of plant cells studied by NH2-terminal
amino acid-sequence analysis of proteins electroblotted from two-dimensional
gel-separated total extracts.
A; Reference number: A94167
A; Accession: H28027
A; Molecule type: protein
A; Residues: 1-10 <BAU>
A; Note: 4-Val was also found
  Query Match
                          47.6%; Score 20; DB 2; Length 10;
                          75.0%; Pred. No. 1.1e+03;
  Best Local Similarity
  Matches
             3; Conservative
                                 0; Mismatches
                                                 1; Indels
                                                                  0; Gaps
                                                                              0;
            4 PPLP 7
Qу
             -11
Db
            7 PPXP 10
RESULT 29
A40207
cell surface glycoprotein gp150 - slime mold (Dictyostelium discoideum)
C; Species: Dictyostelium discoideum
C;Date: 28-Aug-1992 #sequence revision 28-Aug-1992 #text change 31-Dec-1993
C; Accession: A40207
R; Gao, E.N.; Shier, P.; Siu, C.H.
J. Biol. Chem. 267, 9409-9415, 1992
A; Title: Purification and partial characterization of a cell adhesion molecule
(qp150) involved in postaggregation stage cell-cell binding in Dictyostelium
discoideum.
A; Reference number: A40207; MUID: 92250549; PMID: 1577768
A; Accession: A40207
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-13 <GAO>
C; Keywords: glycoprotein
  Query Match
                          47.6%; Score 20; DB 2; Length 13;
  Best Local Similarity
                          75.0%; Pred. No. 1.4e+03;
  Matches
             3; Conservative
                               0; Mismatches
                                                  1; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            4 PPLP 7
             -1111
Db
            3 PPTP 6
RESULT 30
S67918
serine proteinase lasD (EC 3.4.21.-), staphylolytic - Pseudomonas aeruginosa
(fragment)
C; Species: Pseudomonas aeruginosa
C; Date: 19-Mar-1997 #sequence revision 25-Apr-1997 #text change 25-Apr-1997
C; Accession: S67918
R; Park, S.; Galloway, D.R.
```

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Mol. Microbiol. 16, 263-270, 1995
A; Title: Purification and characterization of LasD: a second staphylolytic
proteinase produced by Pseudomonas aeruginosa.
A; Reference number: S67918; MUID: 96015439; PMID: 7565088
A; Accession: S67918
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-15 < PAR>
C; Genetics:
A;Gene: lasD
C; Keywords: hydrolase; serine proteinase
                          47.6%;
                                  Score 20; DB 2; Length 15;
  Query Match
                          60.0%; Pred. No. 1.6e+03;
  Best Local Similarity
  Matches
             3; Conservative
                                 1; Mismatches
                                                                              0;
                                                 1; Indels
                                                                  0; Gaps
            1 MOPPP 5
Qу
             1: 11
Db
            4 METPP 8
RESULT 31
PA0002
photosystem II oxygen-evolving complex protein 3 - Arabidopsis thaliana
C; Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 18-Nov-1994 #sequence revision 06-Jan-1995 #text change 23-Mar-1995
C; Accession: PA0002
R; Kamo, M.; Kawakami, T.; Miyatake, N.; Tsugita, A.
submitted to JIPID, July 1994
A; Description: Separation and characterization of Arabidopsis proteins by two-
dimensional gel electrophoresis.
A; Reference number: PA0001
A; Accession: PA0002
A; Molecule type: protein
A; Residues: 1-15 < KAM>
A; Experimental source: stem
C; Keywords: photosynthesis; photosystem II
                          47.6%; Score 20; DB 2; Length 15;
  Query Match
  Best Local Similarity
                          75.0%; Pred. No. 1.6e+03;
  Matches
             3; Conservative
                              0; Mismatches 1; Indels
                                                                  0; Gaps
                                                                              0;
            4 PPLP 7
Qy
              +
Db
           10 PPXP 13
RESULT 32
H64008
hypothetical protein HI0492 - Haemophilus influenzae (strain Rd KW20)
C; Species: Haemophilus influenzae
C;Date: 18-Aug-1995 #sequence revision 18-Aug-1995 #text change 30-Jun-1998
C; Accession: H64008
R; Fleischmann, R.D.; Adams, M.D.; White, O.; Clayton, R.A.; Kirkness, E.F.;
Kerlavage, A.R.; Bult, C.J.; Tomb, J.F.; Dougherty, B.A.; Merrick, J.M.;
McKenney, K.; Sutton, G.; FitzHugh, W.; Fields, C.; Gocayne, J.D.; Scott, J.;
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Shirley, R.; Liu, L.I.; Glodek, A.; Kelley, J.M.; Weidman, J.F.; Phillips, C.A.;
Spriggs, T.; Hedblom, E.; Cotton, M.D.; Utterback, T.R.; Hanna, M.C.; Nguyen,
D.T.; Saudek, D.M.; Brandon, R.C.; Fine, L.D.; Fritchman, J.L.; Fuhrmann, J.L.;
Geoghagen, N.S.M.
Science 269, 496-512, 1995
A; Authors: Gnehm, C.L.; McDonald, L.A.; Small, K.V.; Fraser, C.M.; Smith, H.O.;
Venter, J.C.
A; Title: Whole-genome random sequencing and assembly of Haemophilus influenzae
A; Reference number: A64000; MUID: 95350630; PMID: 7542800
A; Accession: H64008
A; Status: nucleic acid sequence not shown; translation not shown
A; Molecule type: DNA
A; Residues: 1-14 <TIGR>
A; Cross-references: GB: U32731; GB: L42023; NID: g1573465; PID: g1573478;
TIGR: HI0492
                           46.4%; Score 19.5; DB 2;
                                                        Length 14;
  Query Match
                           41.7%; Pred. No. 1.8e+03;
  Best Local Similarity
 Matches
             5; Conservative
                                  1; Mismatches
                                                    1; Indels
                                                                   5; Gaps
                                                                                1;
            1 MQP----PPLP 7
Qу
              1:1
                      \parallel \parallel \parallel \parallel
Db
            1 MKPKYPKMPPKP 12
RESULT 33
PT0283
Iq heavy chain CRD3 region (clone 4-94B) - human (fragment)
C; Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence revision 30-Sep-1993 #text change 16-Aug-1996
C; Accession: PT0283
R; Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.
J. Exp. Med. 173, 395-407, 1991
A; Title: Preferential utilization of specific immunoglobulin heavy chain
diversity and joining segments in adult human peripheral blood B lymphocytes.
A; Reference number: PT0222; MUID: 91108337; PMID: 1899102
A; Accession: PT0283
A; Molecule type: DNA
A; Residues: 1-7 < YAM>
A; Experimental source: B lymphocyte
C; Keywords: heterotetramer; immunoglobulin
  Query Match
                           45.2%; Score 19; DB 2; Length 7;
  Best Local Similarity
                           100.0%; Pred. No. 2.8e+05;
  Matches
             3; Conservative
                                 0; Mismatches
                                                     0; Indels
                                                                   0; Gaps
                                                                                0;
            2 QPP 4
Qу
              111
Db
            5 QPP 7
RESULT 34
B59272
peptide-N4-(N-acetyl-beta-glucosaminyl)asparagine amidase (EC 3.5.1.52) A, small
chain - sweet almond (fragment)
N; Alternate names: peptide N-glycosidase
```

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C; Species: Prunus dulcis var. sativa (sweet almond)
C;Date: 19-May-2000 #sequence revision 19-May-2000 #text change 19-May-2000
C; Accession: B59272
R; Altmann, F.; Paschinger, K.; Dalik, T.; Vorauer, K.
Eur. J. Biochem. 252, 118-123, 1998
A; Title: Characterisation of peptide-N4-(N-acetyl-beta-glucosaminyl) asparagine
amidase A and its N-glycans.
A; Reference number: A59272; MUID: 98181894; PMID: 9523720
A; Accession: B59272
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-10 <ALT>
C; Keywords: hydrolase
  Query Match
                          45.2%; Score 19; DB 2; Length 10;
  Best Local Similarity
                          60.0%; Pred. No. 1.5e+03;
                              1; Mismatches
                                                                 0; Gaps
                                                                              0;
  Matches
            3; Conservative
                                                  1; Indels
            2 QPPPL 6
Qу
             :1 11
            1 EPTPL 5
Db
RESULT 35
XASNBA
bradykinin-potentiating peptide B - mamushi
C; Species: Agkistrodon blomhoffi (mamushi)
C;Date: 13-Jul-1981 #sequence_revision 13-Jul-1981 #text_change 08-Dec-1995
C; Accession: A01254
R; Kato, H.; Suzuki, T.
Proc. Jpn. Acad. 46, 176-181, 1970
A; Reference number: A01254
A; Accession: A01254
A; Molecule type: protein
A; Residues: 1-11 <KAT>
A; Note: the sequence of the natural peptide was confirmed by the synthesis and
analysis of a peptide having the identical structure and biological properties
C; Superfamily: bradykinin-potentiating peptide
C; Keywords: angiotensin-converting enzyme inhibitor; bradykinin; pyroglutamic
acid; venom
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
  Query Match
                          45.2%; Score 19; DB 1; Length 11;
  Best Local Similarity
                          75.0%; Pred. No. 1.7e+03;
  Matches
           3; Conservative
                                 0; Mismatches
                                                                              0;
                                                l; Indels
                                                                 0; Gaps
            4 PPLP 7
Qу
              \square
            4 PPRP 7
Db
RESULT 36
YHRT
morphogenetic neuropeptide - rat
C; Species: Rattus norvegicus (Norway rat)
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: A01427
```

R; Bodenmuller, H.; Schaller, H.C. Nature 293, 579-580, 1981 A; Title: Conserved amino acid sequence of a neuropeptide, the head activator, from coelenterates to humans. A; Reference number: A93266; MUID: 82035850; PMID: 7290191 A; Accession: A01427 A; Molecule type: protein A; Residues: 1-11 <BOD> R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C. FEBS Lett. 131, 317-321, 1981 A; Title: Synthesis of a new neuropeptide, the head activator from hydra. A; Reference number: A91296; MUID: 82050803; PMID: 7297679 A; Contents: annotation; synthesis A; Note: the synthetic peptide was identical with the natural peptide in chemical structure and biological activity C; Comment: This peptide was first isolated from nerve cells of hydra and was called head activator by the authors, because it induced head-specific growth and differentiation in this animal. It has been found in mammalian intestine and hypothalamus. C; Superfamily: unassigned animal peptides C; Keywords: growth factor; hormone; hypothalamus; intestine; neuropeptide; pyroglutamic acid F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental Query Match 45.2%; Score 19; DB 2; Length 11; 100.0%; Pred. No. 1.7e+03; Best Local Similarity 0; Mismatches 0; Indels 0; Gaps 0; Matches 3; Conservative 2 QPP 4 Qу +111 QPP 3 Db RESULT 37 YHHU morphogenetic neuropeptide - human C; Species: Homo sapiens (man) C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000 C; Accession: B01427; A01427 R; Bodenmuller, H.; Schaller, H.C. Nature 293, 579-580, 1981 A; Title: Conserved amino acid sequence of a neuropeptide, the head activator, from coelenterates to humans. A; Reference number: A93266; MUID: 82035850; PMID: 7290191 A; Accession: B01427 A; Molecule type: protein A; Residues: 1-11 <BOD> R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C. FEBS Lett. 131, 317-321, 1981 A; Title: Synthesis of a new neuropeptide, the head activator from hydra. A; Reference number: A91296; MUID: 82050803; PMID: 7297679 A; Contents: annotation; synthesis A; Note: the synthetic peptide was identical with the natural peptide in chemical structure and biological activity C; Comment: This peptide was first isolated from nerve cells of hydra and was

called head activator because it induced head-specific growth and

```
differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: blocked amino end; growth factor; hormone; hypothalamus; intestine;
neuropeptide
F;1/Modified site: blocked amino end (Gln) (probably pyrrolidone carboxylic
acid) #status experimental
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  Best Local Similarity 100.0%; Pred. No. 1.7e+03;
                               0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
 Matches
            3; Conservative
            2 QPP 4
Qу
             +111
            1 QPP 3
Db
RESULT 38
YHBO
morphogenetic neuropeptide - bovine
C; Species: Bos primigenius taurus (cattle)
C;Date: 20-Jun-2000 #sequence_revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: C01427; A01427
R; Bodenmuller, H.; Schaller, H.C.
Nature 293, 579-580, 1981
A; Title: Conserved amino acid sequence of a neuropeptide, the head activator,
from coelenterates to humans.
A; Reference number: A93266; MUID: 82035850; PMID: 7290191
A; Accession: C01427
A; Molecule type: protein
A; Residues: 1-11 <BOD>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has been found in mammalian intestine and
hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: blocked amino end; growth factor; hormone; hypothalamus; intestine;
neuropeptide
F;1/Modified site: blocked amino end (Gln) (probably pyrrolidone carboxylic
acid) #status experimental
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            3; Conservative 0; Mismatches 0; Indels
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                                                                              0;
  Matches
            2 QPP 4
Qу
             111
Db
            1 QPP 3
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RESULT 39
YHXAE
morphogenetic neuropeptide - sea anemone (Anthopleura elegantissima)
N; Alternate names: head activator
C; Species: Anthopleura elegantissima
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: A93900; A01427
R; Schaller, H.C.; Bodenmuller, H.
Proc. Natl. Acad. Sci. U.S.A. 78, 7000-7004, 1981
A; Title: Isolation and amino acid sequence of a morphogenetic peptide from
hydra.
A; Reference number: A93900
A:Accession: A93900
A; Molecule type: protein
A; Residues: 1-11 <SCH>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
A; Title: Synthesis of a new neuropeptide, the head activator from hydra.
A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has also been found in mammalian intestine
and hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
  Query Match
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                          100.0%; Pred. No. 1.7e+03;
  Best Local Similarity
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0:
  Matches
            3; Conservative
Qу
            2 QPP 4
              +
            1 QPP 3
Dh
RESULT 40
YHJFHY
morphogenetic neuropeptide - Hydra attenuata
N; Alternate names: head activator
C; Species: Hydra attenuata
C;Date: 20-Jun-2000 #sequence revision 20-Jun-2000 #text change 20-Jun-2000
C; Accession: B93900; A01427
R; Schaller, H.C.; Bodenmuller, H.
Proc. Natl. Acad. Sci. U.S.A. 78, 7000-7004, 1981
A; Title: Isolation and amino acid sequence of a morphogenetic peptide from
hydra.
A; Reference number: A93900
A; Accession: B93900
A; Molecule type: protein
A; Residues: 1-11 <SCH>
R; Birr, C.; Zachmann, B.; Bodenmuller, H.; Schaller, H.C.
FEBS Lett. 131, 317-321, 1981
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A; Title: Synthesis of a new neuropeptide, the head activator from hydra.

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A; Reference number: A91296; MUID: 82050803; PMID: 7297679
A; Contents: annotation; synthesis
A; Note: the synthetic peptide was identical with the natural peptide in chemical
structure and biological activity
C; Comment: This peptide was first isolated from nerve cells of hydra and was
called head activator because it induced head-specific growth and
differentiation in this animal. It has also been found in mammalian intestine
and hypothalamus.
C; Superfamily: unassigned animal peptides
C; Keywords: growth factor; hormone; neuropeptide; pyroglutamic acid
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
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  Query Match
                         100.0%; Pred. No. 1.7e+03;
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                              0; Mismatches 0; Indels
                                                                             0;
                                                              0; Gaps
           2 QPP 4
Qу
             -111
Db
            1 QPP 3
RESULT 41
C37196
bradykinin-potentiating peptide 3 - island jararaca
C; Species: Bothrops insularis (island jararaca)
C;Date: 14-Feb-1992 #sequence_revision 01-Dec-1992 #text_change 05-Aug-1994
C; Accession: C37196
R; Cintra, A.C.O.; Vieira, C.A.; Giglio, J.R.
J. Protein Chem. 9, 221-227, 1990
A; Title: Primary structure and biological activity of bradykinin potentiating
peptides from Bothrops insularis snake venom.
A; Reference number: A37196; MUID: 90351557; PMID: 2386615
A; Accession: C37196
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <CIN>
C; Keywords: pyroglutamic acid
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                                                                 0; Gaps
                                                                             0;
            4 PPLP 7
Qу
             Dh
            4 PPRP 7
RESULT 42
D37196
bradykinin-potentiating peptide 4 - island jararaca
C; Species: Bothrops insularis (island jararaca)
C;Date: 14-Feb-1992 #sequence revision 01-Dec-1992 #text change 05-Aug-1994
C; Accession: D37196
R; Cintra, A.C.O.; Vieira, C.A.; Giglio, J.R.
J. Protein Chem. 9, 221-227, 1990
```

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A; Title: Primary structure and biological activity of bradykinin potentiating
peptides from Bothrops insularis snake venom.
A; Reference number: A37196; MUID: 90351557; PMID: 2386615
A; Accession: D37196
A; Status: preliminary
A; Molecule type: protein
A; Residues: 1-11 <CIN>
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                                                                              0;
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Qу
             -111
            4 PPRP 7
Db
RESULT 43
G61458
Ig lambda chain V-II region (AZI) - human (fragment)
C; Species: Homo sapiens (man)
C; Date: 15-Oct-1994 #sequence revision 15-Oct-1994 #text change 16-Aug-1996
C; Accession: G61458; PL0159
R; Brouet, J.C.; Dellagi, K.; Gendron, M.C.; Chevalier, A.; Schmitt, C.;
Mihaesco, E.
J. Exp. Med. 170, 1551-1558, 1989
A; Title: Expression of a public idiotype by human monoclonal IqM directed to
myelin-associated glycoprotein and characterization of the variability subgroup
of their heavy and light chains.
A; Reference number: A61458; MUID: 90039128; PMID: 2478651
A; Accession: G61458
A; Molecule type: protein
A; Residues: 1-13 <BRO>
C; Comment: This protein is one of monoclonal IgM reactive with myelin-associated
alvcoprotein.
C; Keywords: heterotetramer; immunoglobulin
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  Best Local Similarity
                          100.0%; Pred. No. 2e+03;
  Matches
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                                                                 0; Gaps
                                                                              0;
            2 QPP 4
Qу
              \perp
Db
            6 QPP 8
RESULT 44
A86126
hypothetical protein Z5883 [imported] - Escherichia coli (strain O157:H7,
substrain EDL933)
C; Species: Escherichia coli
C; Date: 16-Feb-2001 #sequence revision 16-Feb-2001 #text change 14-Sep-2001
C; Accession: A86126
R; Perna, N.T.; Plunkett III, G.; Burland, V.; Mau, B.; Glasner, J.D.; Rose,
D.J.; Mayhew, G.F.; Evans, P.S.; Gregor, J.; Kirkpatrick, H.A.; Posfai, G.;
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Hackett, J.; Klink, S.; Boutin, A.; Shao, Y.; Miller, L.; Grotbeck, E.J.; Davis,
N.W.; Lim, A.; Dimalanta, E.; Potamousis, K.; Apodaca, J.; Anantharaman, T.S.;
Lin, J.; Yen, G.; Schwartz, D.C.; Welch, R.A.; Blattner, F.R.
Nature 409, 529-533, 2001
A; Title: Genome sequence of enterohemorrhagic Escherichia coli 0157:H7.
A; Reference number: A85480; MUID: 21074935; PMID: 11206551
A; Accession: A86126
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-13 <STO>
A; Cross-references: GB: AE005174; NID: g12519285; PIDN: AAG59469.1; GSPDB: GN00145;
UWGP: Z5883
A; Experimental source: strain O157:H7, substrain EDL933
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A:Gene: Z5883
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                                                                              0;
Qу
            1 MQPPPL 6
              \mathbf{H}
Db
            1 MQPDKL 6
RESULT 45
PA0088
protein QF200051 - fungus (Fusarium sporotrichioides) (fragment)
C; Species: Fusarium sporotrichioides
C; Date: 20-Feb-1995 #sequence revision 20-Feb-1995 #text change 23-Mar-2001
C; Accession: PA0088
R; Chow, L.P.; Fukaya, N.; Sugiura, Y.; Ueno, Y.; Tabuchi, K.; Tsugita, A.
submitted to JIPID, October 1994
A; Description: Two dimensional polyacrylamide gel electropheresis of Fusarium
sporotrichisides proteins.
A; Reference number: PA0051
A; Accession: PA0088
A; Molecule type: protein
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              1 | : |
Db
            1 QKPDIP 6
RESULT 46
A60221
apolipoprotein A-I - common carp (fragment)
C; Species: Cyprinus carpio (common carp)
C;Date: 10-Nov-1992 #sequence revision 10-Nov-1992 #text change 31-Dec-1993
C; Accession: A60221
R; Harel, A.; Fainaru, M.; Rubinstein, M.; Tal, N.; Schwartz, M.
J. Neurochem. 55, 1237-1243, 1990
```

```
A; Title: Fish apolipoprotein-A-I has heparin binding activity: implication for
nerve regeneration.
A; Reference number: A60221; MUID: 90376100; PMID: 2118944
A:Accession: A60221
A; Molecule type: protein
A; Residues: 1-15 <HAR>
A; Note: protein from plasma and from optic nerve yielded the same sequence
C; Keywords: lipid binding; lipoprotein
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                                                                 0; Gaps
                                                                             0;
            2 QPP 4
Qy
              2 QPP 4
Db
RESULT 47
C49048
T-cell receptor beta chain V region (CDR3 junction, clone Vbeta20.1) - human
(fragment)
C; Species: Homo sapiens (man)
C; Date: 21-Jan-1994 #sequence revision 18-Nov-1994 #text change 30-May-1997
C; Accession: C49048
R; Sioud, M.; Kjeldsen-Kragh, J.; Suleyman, S.; Vinje, O.; Natvig, J.B.; Forre,
Eur. J. Immunol. 22, 2413-2418, 1992
A; Title: Limited heterogeneity of T cell receptor variable region gene usage in
juvenile rheumatoid arthritis synovial T cells.
A; Reference number: A49048; MUID: 92387250; PMID: 1387614
A; Accession: C49048
A; Status: preliminary; not compared with conceptual translation
A; Molecule type: mRNA
A; Residues: 1-16 <SIO>
A; Experimental source: patient EV, IL-2R+ synovial T-cells
A; Note: sequence extracted from NCBI backbone (NCBIP:113265)
C; Keywords: T-cell receptor
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  Best Local Similarity
                          60.0%; Pred. No. 2.4e+03;
            3; Conservative
                              1; Mismatches 1; Indels
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Qу
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              :1 11
            7 LQGPP 11
Db
RESULT 48
I49593
cystic fibrosis transmembrane conductance regulator - mouse (fragment)
C; Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence revision 02-Jul-1996 #text change 20-Aug-1999
C; Accession: I49593
R; Denamur, E.; Chehab, F.F.
Hum. Mol. Genet. 3, 1089-1094, 1994
A; Title: Analysis of the mouse and rat CFTR promoter regions.
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A; Reference number: I49593; MUID: 95072572; PMID: 7526924
A:Accession: I49593
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A; Molecule type: DNA
A; Residues: 1-17 < RES>
A;Cross-references: GB:L04873; NID:q414726; PIDN:AAA73562.1; PID:q553892
C; Genetics:
A; Gene: CFTR
C; Superfamily: cystic fibrosis transmembrane conductance regulator; ATP-binding
cassette homology
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  Query Match
  Best Local Similarity 66.7%; Pred. No. 2.6e+03;
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Qу
              11 11
Db
            1 MOKSPL 6
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I84733
gene CFTR protein - rat (fragment)
C; Species: Rattus norvegicus (Norway rat)
C;Date: 02-Aug-1996 #sequence revision 02-Aug-1996 #text change 20-Aug-1999
C; Accession: I84733
R; Denamur, E.; Chehab, F.F.
Hum. Mol. Genet. 3, 1089-1094, 1994
A; Title: Analysis of the mouse and rat CFTR promoter regions.
A; Reference number: I49593; MUID: 95072572; PMID: 7526924
A; Accession: I84733
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: DNA
A; Residues: 1-17 < RES>
A;Cross-references: GB:L26098; NID:q425185; PIDN:AAA73561.1; PID:q915270
C; Genetics:
A; Gene: CFTR
C; Superfamily: cystic fibrosis transmembrane conductance regulator; ATP-binding
cassette homology
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                          66.7%; Pred. No. 2.6e+03;
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                                                2; Indels
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Db
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S05033
photosystem II protein psbL - Synechococcus sp. (strain Copeland) (fragment)
N; Alternate names: photosystem II 5K protein
C; Species: Synechococcus sp.
C;Date: 01-Dec-1989 #sequence revision 01-Dec-1989 #text change 18-Jun-1993
C; Accession: S05033
R; Ikeuchi, M.; Koike, H.; Inoue, Y.
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FEBS Lett. 251, 155-160, 1989

A; Title: Identification of psbI and psbL gene products in cyanobacterial

photosystem II reaction center preparation.

A; Reference number: S05030

A; Accession: S05033 A; Molecule type: protein A; Residues: 1-17 <IKE>

A; Note: the source is designated as Synechococcus vulcanus

C; Genetics: A; Gene: psbL

C; Keywords: photosynthesis; photosystem II; thylakoid

Query Match 45.2%; Score 19; DB 2; Length 17;

Best Local Similarity 60.0%; Pred. No. 2.6e+03;
Matches 3; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

1 MQPPP 5 Qу 1:1 1 1 MEPNP 5 Db

Search completed: July 4, 2004, 04:47:12 Job time: 7.3806 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: July 4, 2004, 04:45:52; Search time 13.7388 Seconds

(without alignments)

158.601 Million cell updates/sec

Title: US-09-641-802-1

Perfect score: 42

Sequence: 1 MQPPPLP 7

Scoring table: BLOSUM62

Gapop 10.0, Gapext 0.5

Searched: 1276540 seqs, 311283816 residues

Total number of hits satisfying chosen parameters: 203405

Minimum DB seq length: 7
Maximum DB seq length: 18

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database: Published Applications AA:*

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7: /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*

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9: /cgn2 6/ptodata/2/pubpaa/US09A PUBCOMB.pep:*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

ક

Result Query

No. Score Match Length DB ID

Description

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                                                        Sequence 278, App
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                     10
                         14 US-10-161-791-278
 2
 3
       33
            78.6
                     13
                         14 US-10-185-050-139
                                                        Sequence 139, App
                                                        Sequence 11, Appl
 4
        32
            76.2
                     9
                         9 US-09-835-232-11
 5
       32
            76.2
                     9 14 US-10-308-485-11
                                                        Sequence 11, Appl
 6
            76.2
        32
                     10
                         14 US-10-185-050-141
                                                        Sequence 141, App
 7
        32
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                         9
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63	30	71.4	13	L 4	US-10-156-932-75	Sequence 75, Appl
64	30	71.4	15	L 4	US-10-161-791-373	Sequence 373, App
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71	30	71.4	16	L 4	US-10-161-791-199	Sequence 199, App
72	30	71.4	17	L 4	US-10-161-791-413	Sequence 413, App
73	29	69.0	8 :	L 4	US-10-193-709-8	Sequence 8, Appli
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82	29	69.0	11 :	L 4	US-10-161-791-262	Sequence 262, App
83	29	69.0	11	L 4	US-10-161-791-290	Sequence 290, App
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85	29	69.0	12	LO	US-09-945-917-22	Sequence 22, Appl
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87	29	69.0	12	LO	US-09-990-832C-96	Sequence 96, Appl
88	29	69.0		LO	US-09-845-917A-10	Sequence 10, Appl
89	29	69.0	12	LO	US-09-845-917A-22	Sequence 22, Appl
90	29	69.0	12	L2	US-10-609-217-313	Sequence 313, App
91	29	69.0	12	۱2	US-10-632-388-313	Sequence 313, App
92	29	69.0	12	L2	US-10-651-723-313	Sequence 313, App
93	29	69.0	12	L2	US-10-645-761-313	Sequence 313, App
94	29	69.0	12	L 4	US-10-185-050-154	Sequence 154, App
95	29	69.0	12	L 4	US-10-161-791-268	Sequence 268, App
96	29	69.0	12	L 4	US-10-161-791-269	Sequence 269, App
97	29	69.0		L 5	US-10-418-751-47	Sequence 47, Appl
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100	29	69.0	12	L 6	US-10-653-048-313	Sequence 313, App

ALIGNMENTS

RESULT 1 US-10-281-652-1 ; Sequence 1, Application US/10281652 ; Publication No. US20030091606A1 ; GENERAL INFORMATION: ; APPLICANT: STANTON, G. John ; APPLICANT: HUGHES, Thomas K.

; APPLICANT: BOLDOGH, Istvan

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TITLE OF INVENTION: USE OF COLOSTRININ, CONSTITUENT PEPTIDES THEREOF, AND
   TITLE OF INVENTION: ANALOGS THEREOF AS OXIDATIVE STRESS REGULATORS
   FILE REFERENCE: 265.00220101
   CURRENT APPLICATION NUMBER: US/10/281,652
   CURRENT FILING DATE: 2002-10-28
   PRIOR APPLICATION NUMBER: US/09/641,803
   PRIOR FILING DATE: 2000-08-17
   PRIOR APPLICATION NUMBER: 60/149,310
  PRIOR FILING DATE: 1999-08-17
  NUMBER OF SEQ ID NOS: 34
   SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
   LENGTH: 7
    TYPE: PRT
   ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Description of Artificial Sequence: synthetic
   OTHER INFORMATION: peptide
US-10-281-652-1
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Qу
              Db
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US-10-161-791-278
; Sequence 278, Application US/10161791
; Publication No. US20030186863A1
   GENERAL INFORMATION:
     APPLICANT: SPARKS, Andrew B.
     APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
     APPLICANT: RIDER, James E.
     TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
     TITLE OF INVENTION: ISOLATING AND USING SAME
     NUMBER OF SEQUENCES: 467
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
       STREET: 1155 Avenue of the Americas
       CITY: New York
       STATE: New York
       COUNTRY: U.S.A.
       ZIP: 10036-2711
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
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APPLICATION NUMBER: US/10/161,791
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: US/08/602,999
      FILING DATE: 16-FEB-1996
   ATTORNEY/AGENT INFORMATION:
     NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
     REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 278:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 10 amino acids
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      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-10-161-791-278
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           1 KPPPLP 6
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RESULT 3
US-10-185-050-139
; Sequence 139, Application US/10185050
; Publication No. US20030077577A1
   GENERAL INFORMATION:
        APPLICANT: Pirozzi, Gregorio
                   Kay, Brian K.
                   Fowlkes, Dana M.
        TITLE OF INVENTION: IDENTIFICATION AND ISOLATION OF NOVEL
                            POLYPEPTIDES HAVING WW DOMAINS AND METHODS OF USING
SAME
        NUMBER OF SEQUENCES: 233
;
        CORRESPONDENCE ADDRESS:
             ADDRESSEE: PENNIE & EDMONDS LLP
             STREET: 1155 Avenue of the Americas
             CITY: New York
             STATE: New York
             COUNTRY: USA
             ZIP: 10036-2711
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
             OPERATING SYSTEM: PC-DOS/MS-DOS
             SOFTWARE: PatentIn Release #1.0, Version #1.30
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/10/185,050
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FILING DATE: 28-Jun-2002
             CLASSIFICATION: <Unknown>
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US/08/826,516
             FILING DATE: 03-Apr-1997
        ATTORNEY/AGENT INFORMATION:
             NAME: MISROCK, S. LESLIE
             REGISTRATION NUMBER: 18,872
             REFERENCE/DOCKET NUMBER: 1101-208-999
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: (212) 790-9090
             TELEFAX: (212) 896-8864/9741
             TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 139:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 13 amino acids
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             STRANDEDNESS: <Unknown>
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Qу
             : | | | | |
           2 VQPPPAP 8
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RESULT 4
US-09-835-232-11
; Sequence 11, Application US/09835232
; Patent No. US20020098489A1
; GENERAL INFORMATION:
; APPLICANT: Leder, Philip
; APPLICANT: Leader, Benjamin
  TITLE OF INVENTION: FORMIN-2 NUCLEIC ACIDS AND POLYPEPTIDES
; TITLE OF INVENTION: AND USES THEREOF
; FILE REFERENCE: 00383/052002
; CURRENT APPLICATION NUMBER: US/09/835,232
  CURRENT FILING DATE: 2001-04-12
; PRIOR APPLICATION NUMBER: US 60/196,811
; PRIOR FILING DATE: 2000-04-13
; NUMBER OF SEQ ID NOS: 22
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
   LENGTH: 9
   TYPE: PRT
   ORGANISM: Mus musculus
US-09-835-232-11
  Query Match
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  Best Local Similarity 100.0%; Pred. No. 1.2e+06;
  Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
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Qу
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Db
RESULT 5
US-10-308-485-11
; Sequence 11, Application US/10308485
; Publication No. US20030170683A1
; GENERAL INFORMATION:
; APPLICANT: Leder, Philip
  APPLICANT: Leader, Benjamin
  TITLE OF INVENTION: FORMIN-2 NUCLEIC ACIDS AND POLYPEPTIDES
  TITLE OF INVENTION: AND USES THEREOF
  FILE REFERENCE: 00383/052002
  CURRENT APPLICATION NUMBER: US/10/308,485
  CURRENT FILING DATE: 2002-12-03
  PRIOR APPLICATION NUMBER: US/09/835,232
  PRIOR FILING DATE: 2001-04-12
  PRIOR APPLICATION NUMBER: US 60/196,811
; PRIOR FILING DATE: 2000-04-13
; NUMBER OF SEQ ID NOS: 22
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; SEQ ID NO 11
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   ORGANISM: Mus musculus
US-10-308-485-11
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  Best Local Similarity 100.0%; Pred. No. 1.2e+06;
           5; Conservative 0; Mismatches 0; Indels 0; Gaps
 Matches
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           3 PPPLP 7
Qу
             4 PPPLP 8
RESULT 6
US-10-185-050-141
; Sequence 141, Application US/10185050
; Publication No. US20030077577A1
   GENERAL INFORMATION:
        APPLICANT: Pirozzi, Gregorio
                   Kay, Brian K.
                   Fowlkes, Dana M.
        TITLE OF INVENTION: IDENTIFICATION AND ISOLATION OF NOVEL
                            POLYPEPTIDES HAVING WW DOMAINS AND METHODS OF USING
SAME
        NUMBER OF SEQUENCES: 233
;
        CORRESPONDENCE ADDRESS:
             ADDRESSEE: PENNIE & EDMONDS LLP
             STREET: 1155 Avenue of the Americas
             CITY: New York
             STATE: New York
             COUNTRY: USA
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ZIP: 10036-2711
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.30
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/10/185,050
              FILING DATE: 28-Jun-2002
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US/08/826,516
              FILING DATE: 03-Apr-1997
        ATTORNEY/AGENT INFORMATION:
              NAME: MISROCK, S. LESLIE
              REGISTRATION NUMBER: 18,872
              REFERENCE/DOCKET NUMBER: 1101-208-999
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (212) 790-9090
              TELEFAX: (212) 896-8864/9741
              TELEX: 66141 PENNIE
    INFORMATION FOR SEQ ID NO: 141:
        SEQUENCE CHARACTERISTICS:
              LENGTH: 10 amino acids
              TYPE: amino acid
              STRANDEDNESS: <Unknown>
              TOPOLOGY: unknown
        MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 141:
US-10-185-050-141
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           3 PPPLP 7
Qу
             Db
           5 PPPLP 9
RESULT 7
US-10-185-050-178
; Sequence 178, Application US/10185050
; Publication No. US20030077577A1
; GENERAL INFORMATION:
        APPLICANT: Pirozzi, Gregorio
                    Kay, Brian K.
                    Fowlkes, Dana M.
         TITLE OF INVENTION: IDENTIFICATION AND ISOLATION OF NOVEL
                             POLYPEPTIDES HAVING WW DOMAINS AND METHODS OF USING
SAME
         NUMBER OF SEQUENCES: 233
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: PENNIE & EDMONDS LLP
              STREET: 1155 Avenue of the Americas
              CITY: New York
              STATE: New York
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COUNTRY: USA
             ZIP: 10036-2711
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
             OPERATING SYSTEM: PC-DOS/MS-DOS
             SOFTWARE: PatentIn Release #1.0, Version #1.30
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/10/185,050
             FILING DATE: 28-Jun-2002
             CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US/08/826,516
             FILING DATE: 03-Apr-1997
        ATTORNEY/AGENT INFORMATION:
             NAME: MISROCK, S. LESLIE
             REGISTRATION NUMBER: 18,872
             REFERENCE/DOCKET NUMBER: 1101-208-999
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: (212) 790-9090
             TELEFAX: (212) 896-8864/9741
             TELEX: 66141 PENNIE
    INFORMATION FOR SEQ ID NO: 178:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 10 amino acids
             TYPE: amino acid
             STRANDEDNESS: <Unknown>
             TOPOLOGY: unknown
        'MOLECULE TYPE: peptide
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                         100.0%; Pred. No. 3.4e+02;
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Qу
             5 PPPLP 9
RESULT 8
US-09-835-232-8
; Sequence 8, Application US/09835232
; Patent No. US20020098489A1
; GENERAL INFORMATION:
  APPLICANT: Leder, Philip
 APPLICANT: Leader, Benjamin
  TITLE OF INVENTION: FORMIN-2 NUCLEIC ACIDS AND POLYPEPTIDES
  TITLE OF INVENTION: AND USES THEREOF
  FILE REFERENCE: 00383/052002
  CURRENT APPLICATION NUMBER: US/09/835,232
; CURRENT FILING DATE: 2001-04-12
; PRIOR APPLICATION NUMBER: US 60/196,811
; PRIOR FILING DATE: 2000-04-13
  NUMBER OF SEQ ID NOS: 22
   SOFTWARE: FastSEQ for Windows Version 4.0
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; SEQ ID NO 8
   LENGTH: 11
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   ORGANISM: Mus musculus
   FEATURE:
   NAME/KEY: VARIANT
   LOCATION: 1
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US-09-835-232-8
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US-09-835-232-9
; Sequence 9, Application US/09835232
; Patent No. US20020098489A1
; GENERAL INFORMATION:
; APPLICANT: Leder, Philip
 APPLICANT: Leader, Benjamin
  TITLE OF INVENTION: FORMIN-2 NUCLEIC ACIDS AND POLYPEPTIDES
  TITLE OF INVENTION: AND USES THEREOF
; FILE REFERENCE: 00383/052002
; CURRENT APPLICATION NUMBER: US/09/835,232
; CURRENT FILING DATE: 2001-04-12
; PRIOR APPLICATION NUMBER: US 60/196,811
; PRIOR FILING DATE: 2000-04-13
; NUMBER OF SEQ ID NOS: 22
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; SEQ ID NO 9
   LENGTH: 11
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   ORGANISM: Mus musculus
US-09-835-232-9
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Qу
             Db
           7 PPPLP 11
RESULT 10
US-10-308-485-8
; Sequence 8, Application US/10308485
; Publication No. US20030170683A1
; GENERAL INFORMATION:
; APPLICANT: Leder, Philip
; APPLICANT: Leader, Benjamin
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TITLE OF INVENTION: FORMIN-2 NUCLEIC ACIDS AND POLYPEPTIDES
  TITLE OF INVENTION: AND USES THEREOF
  FILE REFERENCE: 00383/052002
  CURRENT APPLICATION NUMBER: US/10/308,485
  CURRENT FILING DATE: 2002-12-03
  PRIOR APPLICATION NUMBER: US/09/835,232
  PRIOR FILING DATE: 2001-04-12
  PRIOR APPLICATION NUMBER: US 60/196,811
  PRIOR FILING DATE: 2000-04-13
; NUMBER OF SEQ ID NOS: 22
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 8
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   TYPE: PRT
   ORGANISM: Mus musculus
;
   FEATURE:
   NAME/KEY: VARIANT
   LOCATION: 1
   OTHER INFORMATION: Xaa=Met or Val
US-10-308-485-8
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  Best Local Similarity 100.0%; Pred. No. 3.7e+02;
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                                               0; Indels 0; Gaps
           3 PPPLP 7
Qy
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           6 PPPLP 10
RESULT 11
US-10-308-485-9
; Sequence 9, Application US/10308485
; Publication No. US20030170683A1
; GENERAL INFORMATION:
  APPLICANT: Leder, Philip
  APPLICANT: Leader, Benjamin
  TITLE OF INVENTION: FORMIN-2 NUCLEIC ACIDS AND POLYPEPTIDES
  TITLE OF INVENTION: AND USES THEREOF
; FILE REFERENCE: 00383/052002
; CURRENT APPLICATION NUMBER: US/10/308,485
  CURRENT FILING DATE: 2002-12-03
  PRIOR APPLICATION NUMBER: US/09/835,232
 PRIOR FILING DATE: 2001-04-12
  PRIOR APPLICATION NUMBER: US 60/196,811
  PRIOR FILING DATE: 2000-04-13
  NUMBER OF SEQ ID NOS: 22
  SOFTWARE: FastSEQ for Windows Version 4.0
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   TYPE: PRT
   ORGANISM: Mus musculus
US-10-308-485-9
 Query Match
                         76.2%; Score 32; DB 14; Length 11;
  Best Local Similarity 100.0%; Pred. No. 3.7e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0;
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```
3 PPPLP 7
Qу
             7 PPPLP 11
Db
RESULT 12
US-09-845-612B-9
; Sequence 9, Application US/09845612B
; Publication No. US20030083261A1
; GENERAL INFORMATION:
  APPLICANT: YU, HONGTAO
  APPLICANT: TANG, ZHANYUN
; APPLICANT: LUO, XUELIAN
  APPLICANT: RIZO-REY, JOSE
  TITLE OF INVENTION: A CLASS OF 12MER PEPTIDES THAT INHIBIT THE FUNCTINO OF
THE MITOTIC CHECK
  TITLE OF INVENTION: POINT PROTEIN MAD2
  FILE REFERENCE: UTSD:795
  CURRENT APPLICATION NUMBER: US/09/845,612B
  CURRENT FILING DATE: 2001-04-27
; NUMBER OF SEQ ID NOS: 20
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 9
   LENGTH: 12
    TYPE: PRT
    ORGANISM: Artificial Sequence
   FEATURE:
   NAME/KEY: misc feature
   LOCATION: (1)..(12)
    OTHER INFORMATION: synthetic peptide
US-09-845-612B-9
  Query Match
                          76.2%; Score 32; DB 10; Length 12;
                         83.3%; Pred. No. 4e+02;
  Best Local Similarity
                                                                 0; Gaps
            5; Conservative
                                1; Mismatches
                                                  0; Indels
                                                                             0;
            1 MQPPPL 6
Qу
             : | | | | |
            5 LOPPPL 10
Db
RESULT 13
US-10-161-791-251
; Sequence 251, Application US/10161791
; Publication No. US20030186863A1
   GENERAL INFORMATION:
     APPLICANT: SPARKS, Andrew B.
     APPLICANT: KAY, Brian K.
     APPLICANT: THORN, Judith M.
     APPLICANT: QUILLIAM, Lawrence A.
     APPLICANT: DER, Channing J.
     APPLICANT: FOWLKES, Dana M.
     APPLICANT: RIDER, James E.
     TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
     TITLE OF INVENTION: ISOLATING AND USING SAME
     NUMBER OF SEQUENCES: 467
```

```
CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/10/161,791
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: US/08/602,999
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 251:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 12 amino acids
;
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-10-161-791-251
                         76.2%; Score 32; DB 14; Length 12; 100.0%; Pred. No. 4e+02;
  Query Match
  Best Local Similarity
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                            0;
           3 PPPLP 7
Qу
             Db
           6 PPPLP 10
RESULT 14
US-10-161-791-267
; Sequence 267, Application US/10161791
; Publication No. US20030186863A1
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
```

```
TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
;
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
;
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
;
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/10/161,791
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999
      FILING DATE: 16-FEB-1996
;
    ATTORNEY/AGENT INFORMATION:
;
     NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 267:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 12 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-10-161-791-267
  Query Match
                         76.2%; Score 32; DB 14; Length 12;
  Best Local Similarity 100.0%; Pred. No. 4e+02;
           5; Conservative 0; Mismatches 0; Indels
  Matches
                                                               0; Gaps
Qу
           3 PPPLP 7
             11111
Db
           6 PPPLP 10
RESULT 15
US-09-945-917-13
; Sequence 13, Application US/09945917
; Publication No. US20030042381A1
; GENERAL INFORMATION:
  APPLICANT: Bogaert, Thierry
; APPLICANT: Vandekerckhove, Joel
  TITLE OF INVENTION: PROCESSES FOR THE IDENTIFICATION OF COMPOUNDS WHICH
; TITLE OF INVENTION: CONTROL CELL BEHAVIOUR, THE COMPOUNDS IDENTIFIED AND
; TITLE OF INVENTION: PHARMACEUTICAL COMPOSITIONS CONTIANING THEM AND THEIR
; TITLE OF INVENTION: USE IN THE CONTROL OF CELL BEHAVIOUR
```

```
FILE REFERENCE: P/14-1
  CURRENT APPLICATION NUMBER: US/09/945,917
; CURRENT FILING DATE: 1998-09-21
; NUMBER OF SEQ ID NOS: 58
 SOFTWARE: PatentIn Ver. 2.1
; SEO ID NO 13
   LENGTH: 13
   TYPE: PRT
    ORGANISM: Caenorhabditis elegans
US-09-945-917-13
 Query Match
                          76.2%; Score 32; DB 10; Length 13;
  Best Local Similarity 100.0%; Pred. No. 4.3e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
           3 PPPLP 7
Qу
             Db
          5 PPPLP 9
RESULT 16
US-09-945-917-14
; Sequence 14, Application US/09945917
; Publication No. US20030042381A1
; GENERAL INFORMATION:
; APPLICANT: Bogaert, Thierry
; APPLICANT: Vandekerckhove, Joel
  TITLE OF INVENTION: PROCESSES FOR THE IDENTIFICATION OF COMPOUNDS WHICH
 TITLE OF INVENTION: CONTROL CELL BEHAVIOUR, THE COMPOUNDS IDENTIFIED AND TITLE OF INVENTION: PHARMACEUTICAL COMPOSITIONS CONTIANING THEM AND THEIR TITLE OF INVENTION: USE IN THE CONTROL OF CELL BEHAVIOUR
; FILE REFERENCE: P/14-1
; CURRENT APPLICATION NUMBER: US/09/945,917
; CURRENT FILING DATE: 1998-09-21
; NUMBER OF SEQ ID NOS: 58
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 14
   LENGTH: 13
    TYPE: PRT
    ORGANISM: Caenorhabditis elegans
US-09-945-917-14
  Query Match
                           76.2%; Score 32; DB 10; Length 13;
  Best Local Similarity 57.1%; Pred. No. 4.3e+02;
 Matches 4; Conservative 2; Mismatches 1; Indels 0; Gaps
                                                                                 0;
            1 MQPPPLP 7
Qy
             : |||:|
            3 LSPPPIP 9
RESULT 17
US-09-945-917-19
; Sequence 19, Application US/09945917
; Publication No. US20030042381A1
; GENERAL INFORMATION:
; APPLICANT: Bogaert, Thierry
```

```
APPLICANT: Vandekerckhove, Joel
  TITLE OF INVENTION: PROCESSES FOR THE IDENTIFICATION OF COMPOUNDS WHICH
  TITLE OF INVENTION: CONTROL CELL BEHAVIOUR, THE COMPOUNDS IDENTIFIED AND
  TITLE OF INVENTION: PHARMACEUTICAL COMPOSITIONS CONTIANING THEM AND THEIR
  TITLE OF INVENTION: USE IN THE CONTROL OF CELL BEHAVIOUR
  FILE REFERENCE: P/14-1
  CURRENT APPLICATION NUMBER: US/09/945,917
  CURRENT FILING DATE: 1998-09-21
; NUMBER OF SEQ ID NOS: 58
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 19
   LENGTH: 13
   TYPE: PRT
   ORGANISM: Caenorhabditis elegans
US-09-945-917-19
                         76.2%; Score 32; DB 10; Length 13;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.3e+02;
 Matches
           5; Conservative 0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
Qy
           3 PPPLP 7
             11111
Db
           6 PPPLP 10
RESULT 18
US-09-945-917-21
; Sequence 21, Application US/09945917
; Publication No. US20030042381A1
; GENERAL INFORMATION:
; APPLICANT: Bogaert, Thierry
; APPLICANT: Vandekerckhove, Joel
  TITLE OF INVENTION: PROCESSES FOR THE IDENTIFICATION OF COMPOUNDS WHICH
  TITLE OF INVENTION: CONTROL CELL BEHAVIOUR, THE COMPOUNDS IDENTIFIED AND
  TITLE OF INVENTION: PHARMACEUTICAL COMPOSITIONS CONTIANING THEM AND THEIR
  TITLE OF INVENTION: USE IN THE CONTROL OF CELL BEHAVIOUR
  FILE REFERENCE: P/14-1
  CURRENT APPLICATION NUMBER: US/09/945,917
; CURRENT FILING DATE: 1998-09-21
; NUMBER OF SEQ ID NOS: 58
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 21
   LENGTH: 13
   TYPE: PRT
   ORGANISM: Caenorhabditis elegans
US-09-945-917-21
 Query Match
                         76.2%; Score 32; DB 10; Length 13;
  Best Local Similarity 100.0%; Pred. No. 4.3e+02;
 Matches
           5; Conservative 0; Mismatches 0; Indels
                                                                           0;
                                                               0; Gaps
           3 PPPLP 7
Qу
             -11111
Db
           5 PPPLP 9
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RESULT 19

```
US-09-845-917A-13
; Sequence 13, Application US/09845917A
; Publication No. US20030167538A1
; GENERAL INFORMATION:
  APPLICANT: Bogaert, Thierry
  APPLICANT: Vandekerckhove, Joel
  TITLE OF INVENTION: PROCESSES FOR THE IDENTIFICATION OF COMPOUNDS WHICH
  TITLE OF INVENTION: CONTROL CELL BEHAVIOUR, THE COMPOUNDS IDENTIFIED AND
  TITLE OF INVENTION: PHARMACEUTICAL COMPOSITIONS CONTIANING THEM AND THEIR
  TITLE OF INVENTION: USE IN THE CONTROL OF CELL BEHAVIOUR
  FILE REFERENCE: P/14-1
  CURRENT APPLICATION NUMBER: US/09/845,917A
  CURRENT FILING DATE: 2001-04-30
  NUMBER OF SEQ ID NOS: 58
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 13
   LENGTH: 13
   TYPE: PRT
   ORGANISM: Caenorhabditis elegans
US-09-845-917A-13
  Query Match
                         76.2%; Score 32; DB 10; Length 13;
  Best Local Similarity
                         100.0%; Pred. No. 4.3e+02;
  Matches
           5; Conservative
                               0; Mismatches
                                                0; Indels 0; Gaps
           3 PPPLP 7
Qу
             11111
           5 PPPLP 9
Db
RESULT 20
US-09-845-917A-14
; Sequence 14, Application US/09845917A
; Publication No. US20030167538A1
; GENERAL INFORMATION:
  APPLICANT: Bogaert, Thierry
  APPLICANT: Vandekerckhove, Joel
  TITLE OF INVENTION: PROCESSES FOR THE IDENTIFICATION OF COMPOUNDS WHICH
  TITLE OF INVENTION: CONTROL CELL BEHAVIOUR, THE COMPOUNDS IDENTIFIED AND
  TITLE OF INVENTION: PHARMACEUTICAL COMPOSITIONS CONTIANING THEM AND THEIR
  TITLE OF INVENTION: USE IN THE CONTROL OF CELL BEHAVIOUR
; FILE REFERENCE: P/14-1
  CURRENT APPLICATION NUMBER: US/09/845,917A
  CURRENT FILING DATE: 2001-04-30
  NUMBER OF SEQ ID NOS: 58
  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 14
   LENGTH: 13
   TYPE: PRT
   ORGANISM: Caenorhabditis elegans
US-09-845-917A-14
                         76.2%; Score 32; DB 10; Length 13;
  Query Match
                         57.1%; Pred. No. 4.3e+02;
  Best Local Similarity
           4; Conservative 2; Mismatches 1; Indels
Qу
       1 MQPPPLP 7
```

```
: |||:|
Db 3 LSPPPIP 9
```

```
RESULT 21
US-09-845-917A-19
; Sequence 19, Application US/09845917A
; Publication No. US20030167538A1
; GENERAL INFORMATION:
; APPLICANT: Bogaert, Thierry
  APPLICANT: Vandekerckhove, Joel
   TITLE OF INVENTION: PROCESSES FOR THE IDENTIFICATION OF COMPOUNDS WHICH
   TITLE OF INVENTION: CONTROL CELL BEHAVIOUR, THE COMPOUNDS IDENTIFIED AND
   TITLE OF INVENTION: PHARMACEUTICAL COMPOSITIONS CONTIANING THEM AND THEIR
   TITLE OF INVENTION: USE IN THE CONTROL OF CELL BEHAVIOUR
   FILE REFERENCE: P/14-1
   CURRENT APPLICATION NUMBER: US/09/845,917A
   CURRENT FILING DATE: 2001-04-30
; NUMBER OF SEQ ID NOS: 58
   SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 19
    LENGTH: 13
    TYPE: PRT
    ORGANISM: Caenorhabditis elegans
US-09-845-917A-19
  Query Match
                            76.2%; Score 32; DB 10; Length 13;
  Best Local Similarity 100.0%; Pred. No. 4.3e+02;
            5; Conservative 0; Mismatches 0; Indels
                                                                      0; Gaps
                                                                                   0;
            3 PPPLP 7
Qy
              Db
             6 PPPLP 10
RESULT 22
US-09-845-917A-21
; Sequence 21, Application US/09845917A
; Publication No. US20030167538A1
; GENERAL INFORMATION:
; APPLICANT: Bogaert, Thierry
; APPLICANT: Vandekerckhove, Joel
   TITLE OF INVENTION: PROCESSES FOR THE IDENTIFICATION OF COMPOUNDS WHICH
  TITLE OF INVENTION: CONTROL CELL BEHAVIOUR, THE COMPOUNDS IDENTIFIED AND TITLE OF INVENTION: PHARMACEUTICAL COMPOSITIONS CONTIANING THEM AND THEIR TITLE OF INVENTION: USE IN THE CONTROL OF CELL BEHAVIOUR
   FILE REFERENCE: P/14-1
   CURRENT APPLICATION NUMBER: US/09/845,917A
   CURRENT FILING DATE: 2001-04-30
; NUMBER OF SEQ ID NOS: 58
   SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 21
    LENGTH: 13
    TYPE: PRT
    ORGANISM: Caenorhabditis elegans
US-09-845-917A-21
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```
Query Match 76.2%; Score 32; DB 10; Length 13; Best Local Similarity 100.0%; Pred. No. 4.3e+02;
           5; Conservative 0; Mismatches 0; Indels 0; Gaps
 Matches
           3 PPPLP 7
Qу
             5 PPPLP 9
Db
RESULT 23
US-10-067-668-11
; Sequence 11, Application US/10067668
; Publication No. US20030022334A1
; GENERAL INFORMATION:
; APPLICANT: Glucksmann, Maria Alexandra
 TITLE OF INVENTION: 33312, 33303, 32579, NOVEL HUMAN
; TITLE OF INVENTION: CYTOCHROME P450 FAMILY MEMBERS AND USES THEREOF
; FILE REFERENCE: 10448-136001
; CURRENT APPLICATION NUMBER: US/10/067,668
  CURRENT FILING DATE: 2002-02-04
  PRIOR APPLICATION NUMBER: 60/266,140
; PRIOR FILING DATE: 2001-02-02
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
   LENGTH: 13
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: Consensus sequence
US-10-067-668-11
  Query Match
                         76.2%; Score 32; DB 14; Length 13;
 Best Local Similarity 100.0%; Pred. No. 4.3e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                            0;
           3 PPPLP 7
Qу
             4 PPPLP 8
Dh
RESULT 24
US-10-175-696-11
; Sequence 11, Application US/10175696
; Publication No. US20030092658A1
; GENERAL INFORMATION:
; APPLICANT: Glucksmann, Maria Alexandra
; APPLICANT: Meyers, Rachel
; APPLICANT: Rudolph-Owen, Laura A.
  TITLE OF INVENTION: NOVEL HUMAN ENZYME FAMILY MEMBERS AND USES THEREOF
  FILE REFERENCE: 10448-193001
  CURRENT APPLICATION NUMBER: US/10/175,696
; CURRENT FILING DATE: 2002-06-20
; PRIOR APPLICATION NUMBER: 10/067,668
; PRIOR FILING DATE: 2002-02-04
; PRIOR APPLICATION NUMBER: 60/266,140
; PRIOR FILING DATE: 2001-02-02
```

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PRIOR APPLICATION NUMBER: 09/823,901
 PRIOR FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: PCT/US01/10720
 PRIOR FILING DATE: 2001-04-02
; PRIOR APPLICATION NUMBER: 60/193,920
 PRIOR FILING DATE: 2000-03-31
  PRIOR APPLICATION NUMBER: 09/862,658
; PRIOR FILING DATE: 2001-05-21
; PRIOR APPLICATION NUMBER: PCT/US01/16380
; PRIOR FILING DATE: 2001-05-21
; PRIOR APPLICATION NUMBER: 60/205,675
; PRIOR FILING DATE: 2000-05-19
 PRIOR APPLICATION NUMBER: 09/882,837
  PRIOR FILING DATE: 2001-06-15
; PRIOR APPLICATION NUMBER: PCT/US01/19319
; PRIOR FILING DATE: 2001-06-15
; PRIOR APPLICATION NUMBER: 60/211,727
; PRIOR FILING DATE: 2000-06-15
; NUMBER OF SEQ ID NOS: 31
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
   LENGTH: 13
   TYPE: PRT
   ORGANISM: Artificial Sequence
    OTHER INFORMATION: consensus sequence
US-10-175-696-11
  Query Match 76.2%; Score 32; DB 14; Length 13; Best Local Similarity 100.0%; Pred. No. 4.3e+02;
  Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
           3 PPPLP 7
Qy
             4 PPPLP 8
Db
RESULT 25
US-09-879-957-186
; Sequence 186, Application US/09879957
; Patent No. US20020034755A1
    GENERAL INFORMATION:
         APPLICANT: SPARKS, Andrew B.
                    HOFFMAN, No. US20020034755A1h
                    KAY, Brian K.
                    FOWLKES, Dana M.
                    McCONNELL, Stephen J.
        TITLE OF INVENTION: POLYPEPTIDES HAVING A FUNCTIONAL
                             DOMAIN OF INTEREST AND METHODS OF IDENTIFYING AND
                             USING SAME
        NUMBER OF SEQUENCES: 227
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Pennie & Edmonds LLP
              STREET: 1155 Avenue of the Americas
              CITY: New York
              STATE: New York
              COUNTRY: USA
```

```
ZIP: 10036-2711
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
             OPERATING SYSTEM: PC-DOS/MS-DOS
             SOFTWARE: PatentIn Release #1.0, Version #1.30
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/879,957
             FILING DATE: 13-Jun-2001
             CLASSIFICATION: <Unknown>
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US 08/630,915
             FILING DATE: 03-APR-1996
        ATTORNEY/AGENT INFORMATION:
             NAME: Misrock, S. Leslie
             REGISTRATION NUMBER: 18,872
             REFERENCE/DOCKET NUMBER: 1101-174
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: (212) 790-9090
             TELEFAX: (212) 869-8864/9741
             TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 186:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 14 amino acids
             TYPE: amino acid
             STRANDEDNESS: <Unknown>
             TOPOLOGY: unknown
        MOLECULE TYPE: peptide
        SEQUENCE DESCRIPTION: SEQ ID NO: 186:
US-09-879-957-186
 Query Match
                         76.2%; Score 32; DB 9; Length 14;
 Best Local Similarity 100.0%; Pred. No. 4.5e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                            0;
           3 PPPLP 7
Qу
             Db
           5 PPPLP 9
RESULT 26
US-10-185-050-63
; Sequence 63, Application US/10185050
; Publication No. US20030077577A1
; GENERAL INFORMATION:
        APPLICANT: Pirozzi, Gregorio
                   Kay, Brian K.
                   Fowlkes, Dana M.
        TITLE OF INVENTION: IDENTIFICATION AND ISOLATION OF NOVEL
                            POLYPEPTIDES HAVING WW DOMAINS AND METHODS OF USING
SAME
        NUMBER OF SEQUENCES: 233
;
        CORRESPONDENCE ADDRESS:
;
             ADDRESSEE: PENNIE & EDMONDS LLP
              STREET: 1155 Avenue of the Americas
             CITY: New York
             STATE: New York
```

```
COUNTRY: USA
             ZIP: 10036-2711
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
             COMPUTER: IBM PC compatible
             OPERATING SYSTEM: PC-DOS/MS-DOS
             SOFTWARE: PatentIn Release #1.0, Version #1.30
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/10/185,050
             FILING DATE: 28-Jun-2002
             CLASSIFICATION: <Unknown>
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US/08/826,516
             FILING DATE: 03-Apr-1997
        ATTORNEY/AGENT INFORMATION:
             NAME: MISROCK, S. LESLIE
             REGISTRATION NUMBER: 18,872
             REFERENCE/DOCKET NUMBER: 1101-208-999
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: (212) 790-9090
             TELEFAX: (212) 896-8864/9741
             TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 63:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 14 amino acids
             TYPE: amino acid
             STRANDEDNESS: <Unknown>
             TOPOLOGY: unknown
        MOLECULE TYPE: peptide
        SEQUENCE DESCRIPTION: SEQ ID NO: 63:
US-10-185-050-63
  Query Match
                         76.2%; Score 32; DB 14; Length 14;
  Best Local Similarity 100.0%; Pred. No. 4.5e+02;
                               0; Mismatches 0; Indels 0; Gaps
                                                                            0;
 Matches
           5; Conservative
           3 PPPLP 7
Qy
             5 PPPLP 9
Dh
RESULT 27
US-10-148-936-3
; Sequence 3, Application US/10148936
; Publication No. US20030113819A1
; GENERAL INFORMATION:
; APPLICANT: Horton, Jeffrey
; APPLICANT: Smith, John
; APPLICANT: Teear, Michelle
 APPLICANT: Kendall, Jonathan
  APPLICANT: Michael, Nigel
  TITLE OF INVENTION: Reagent and Method for Delivery of Molecules into Cells
; FILE REFERENCE: PA9963
; CURRENT APPLICATION NUMBER: US/10/148,936
; CURRENT FILING DATE: 2000-12-04
; PRIOR APPLICATION NUMBER: PCT/GB00/04593
; PRIOR FILING DATE: 2000-12-04
```

```
PRIOR APPLICATION NUMBER: GB 9928674.2
  PRIOR FILING DATE: 1999-12-06
; NUMBER OF SEQ ID NOS: 16
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
   LENGTH: 14
   TYPE: PRT
   ORGANISM: artificial sequence
   FEATURE:
   OTHER INFORMATION: synthetic oligomer
US-10-148-936-3
                         76.2%; Score 32; DB 14; Length 14;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 4.5e+02;
           5; Conservative
                              0; Mismatches
 Matches
                                                0; Indels
                                                                0; Gaps
                                                                            0;
           3 PPPLP 7
Qу
             +11111
           5 PPPLP 9
Dh
RESULT 28
US-10-161-791-356
; Sequence 356, Application US/10161791
; Publication No. US20030186863A1
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/10/161,791
       FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
```

```
REGISTRATION NUMBER: 18,872
       REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
       TELEPHONE: (212) 790-9090
       TELEFAX: (212) 869-9741/8864
       TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 356:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-10-161-791-356
 Query Match
                         76.2%; Score 32; DB 14; Length 15;
  Best Local Similarity 100.0%; Pred. No. 4.8e+02;
  Matches 5; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
Qу
           3 PPPLP 7
             11111
Db
           7 PPPLP 11
RESULT 29
US-10-161-791-385
; Sequence 385, Application US/10161791
; Publication No. US20030186863A1
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B. APPLICANT: KAY, Brian K.
;
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
       STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
       ZIP: 10036-2711
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/10/161,791
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: US/08/602,999
      FILING DATE: 16-FEB-1996
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ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
;
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 385:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-10-161-791-385
 Query Match
                         76.2%; Score 32; DB 14; Length 15;
 Best Local Similarity 100.0%; Pred. No. 4.8e+02;
 Matches
           5; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0;
Qу
           3 PPPLP 7
             1111
Db
           7 PPPLP 11
RESULT 30
US-10-161-791-404
; Sequence 404, Application US/10161791
; Publication No. US20030186863A1
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
;
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/10/161,791
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US/08/602,999
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 404:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-10-161-791-404
                         76.2%; Score 32; DB 14; Length 15;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 4.8e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels
                                                                0; Gaps
                                                                            0;
Qу
           3 PPPLP 7
             11111
Db
           4 PPPLP 8
RESULT 31
US-10-161-791-414
; Sequence 414, Application US/10161791
; Publication No. US20030186863A1
; GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J. APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
   TITLE OF INVENTION: ISOLATING AND USING SAME
   NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/10/161,791
     FILING DATE:
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CLASSIFICATION:
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999
       FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
       REGISTRATION NUMBER: 18,872
       REFERENCE/DOCKET NUMBER: 1101-202
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (212) 790-9090
       TELEFAX: (212) 869-9741/8864
       TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 414:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 15 amino acids
      TYPE: amino acid
       TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-10-161-791-414
  Query Match
                          76.2%; Score 32; DB 14; Length 15;
                         100.0%; Pred. No. 4.8e+02;
  Best Local Similarity
  Matches
           5; Conservative 0; Mismatches 0; Indels
                                                                 0;
                                                                     Gaps
                                                                             0;
            3 PPPLP 7
Qу
             Db
            4 PPPLP 8
RESULT 32
US-10-161-791-435
; Sequence 435, Application US/10161791
; Publication No. US20030186863A1
  GENERAL INFORMATION:
     APPLICANT: SPARKS, Andrew B.
     APPLICANT: KAY, Brian K. APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
     APPLICANT: FOWLKES, Dana M.
     APPLICANT: RIDER, James E.
     TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
     TITLE OF INVENTION: ISOLATING AND USING SAME
     NUMBER OF SEQUENCES: 467
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Pennie & Edmonds
       STREET: 1155 Avenue of the Americas
       CITY: New York
       STATE: New York
       COUNTRY: U.S.A.
       ZIP: 10036-2711
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
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APPLICATION NUMBER: US/10/161,791
       FILING DATE:
       CLASSIFICATION:
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
     TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
       TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 435:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-10-161-791-435
  Query Match
                         76.2%; Score 32; DB 14; Length 15;
  Best Local Similarity 100.0%; Pred. No. 4.8e+02;
           5; Conservative 0; Mismatches 0; Indels
                                                                     Gaps
Qу
           3 PPPLP 7
             +1111
Db
            4 PPPLP 8
RESULT 33
US-10-161-791-436
; Sequence 436, Application US/10161791
; Publication No. US20030186863A1
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B. APPLICANT: KAY, Brian K.
;
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
     TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
     TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
       STREET: 1155 Avenue of the Americas
      CITY: New York
       STATE: New York
       COUNTRY: U.S.A.
       ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
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SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/10/161,791
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 436:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-10-161-791-436
 Query Match
                         76.2%; Score 32; DB 14; Length 15;
 Best Local Similarity 57.1%; Pred. No. 4.8e+02;
 Matches
           4; Conservative 2; Mismatches 1; Indels
                                                               0; Gaps
                                                                            0;
Qy
           1 MQPPPLP 7
             : |||:|
Db
           2 LSPPPIP 8
RESULT 34
US-10-161-791-441
; Sequence 441, Application US/10161791
; Publication No. US20030186863A1
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
       STREET: 1155 Avenue of the Americas
      CITY: New York
       STATE: New York
      COUNTRY: U.S.A.
       ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
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COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/10/161,791
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      FILING DATE:
;
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
;
     APPLICATION NUMBER: US/08/602,999
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
;
     NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
;
      REFERENCE/DOCKET NUMBER: 1101-202
;
    TELECOMMUNICATION INFORMATION:
;
     TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 441:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-10-161-791-441
 Query Match
                         76.2%; Score 32; DB 14; Length 15;
 Best Local Similarity 100.0%; Pred. No. 4.8e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
           3 PPPLP 7
Qy
             Db
           5 PPPLP 9
RESULT 35
US-10-161-791-452
; Sequence 452, Application US/10161791
; Publication No. US20030186863A1
; GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A. APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
     ZIP: 10036-2711
```

```
COMPUTER READABLE FORM:
       MEDIUM TYPE: Floppy disk
;
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/10/161,791
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999
       FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
;
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
       TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 452:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 15 amino acids
      TYPE: amino acid
       TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-10-161-791-452
  Query Match 76.2%; Score 32; DB 14; Length 15; Best Local Similarity 100.0%; Pred. No. 4.8e+02;
 Matches
           5; Conservative 0; Mismatches 0; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            3 PPPLP 7
             Db
            7 PPPLP 11
RESULT 36
US-10-161-791-197
; Sequence 197, Application US/10161791
; Publication No. US20030186863A1
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K. APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
     ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
```

```
COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/10/161,791
     FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
     APPLICATION NUMBER: US/08/602,999
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
    NAME: Misrock, S. Leslie
     REGISTRATION NUMBER: 18,872
     REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 197:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 16 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-10-161-791-197
 Query Match
                         76.2%; Score 32; DB 14; Length 16;
 Best Local Similarity 100.0%; Pred. No. 5.1e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
           3 PPPLP 7
Qy
             1111
Db
           9 PPPLP 13
RESULT 37
US-10-161-791-360
; Sequence 360, Application US/10161791
; Publication No. US20030186863A1
; GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
;
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF TITLE OF INVENTION: ISOLATING AND USING SAME
   NUMBER OF SEQUENCES: 467
   CORRESPONDENCE ADDRESS:
     ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
```

```
CITY: New York
      STATE: New York
;
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
   CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/10/161,791
     FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
    APPLICATION NUMBER: US/08/602,999
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
     NAME: Misrock, S. Leslie
     REGISTRATION NUMBER: 18,872
     REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
٠;
      TELEPHONE: (212) 790-9090
;
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 360:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 17 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-10-161-791-360
 Query Match
                         76.2%; Score 32; DB 14; Length 17;
 Best Local Similarity 100.0%; Pred. No. 5.4e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                           0;
           3 PPPLP 7
Qу
             9 PPPLP 13
Dh
RESULT 38
US-10-161-791-374
; Sequence 374, Application US/10161791
; Publication No. US20030186863A1
; GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A. APPLICANT: DER, Channing J.
;
    APPLICANT: FOWLKES, Dana M.
;
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
   TITLE OF INVENTION: ISOLATING AND USING SAME
   NUMBER OF SEQUENCES: 467
   CORRESPONDENCE ADDRESS:
```

```
ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/10/161,791
      FILING DATE:
      CLASSIFICATION:
;
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 374:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 17 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-10-161-791-374
                         76.2%; Score 32; DB 14; Length 17;
  Query Match
                         100.0%; Pred. No. 5.4e+02;
  Best Local Similarity
           5; Conservative
                               0; Mismatches 0; Indels
                                                               0; Gaps
                                                                           0;
           3 PPPLP 7
Qу
             11111
           9 PPPLP 13
RESULT 39
US-10-161-791-320
; Sequence 320, Application US/10161791
; Publication No. US20030186863A1
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
     TITLE OF INVENTION: ISOLATING AND USING SAME
```

```
NUMBER OF SEQUENCES: 467
;
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
       STREET: 1155 Avenue of the Americas
      CITY: New York
       STATE: New York
       COUNTRY: U.S.A.
;
      ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
;
    CURRENT APPLICATION DATA:
;
      APPLICATION NUMBER: US/10/161,791
      FILING DATE:
      CLASSIFICATION:
;
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: US/08/602,999
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
;
      NAME: Misrock, S. Leslie
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
       TELEX: 66141 PENNIE
   INFORMATION FOR SEO ID NO: 320:
    SEQUENCE CHARACTERISTICS:
       LENGTH: 18 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-10-161-791-320
 Query Match
                         76.2%; Score 32; DB 14; Length 18;
 Best Local Similarity
                         100.0%; Pred. No. 5.6e+02;
  Matches
           5; Conservative 0; Mismatches 0; Indels 0; Gaps
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Qу
           3 PPPLP 7
              Db
          10 PPPLP 14
RESULT 40
US-10-161-791-409
; Sequence 409, Application US/10161791
; Publication No. US20030186863A1
  GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
```

```
TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
      COUNTRY: U.S.A.
      ZIP: 10036-2711
;
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
;
      COMPUTER: IBM PC compatible
;
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/10/161,791
;
      FILING DATE:
      CLASSIFICATION:
;
    PRIOR APPLICATION DATA:
;
      APPLICATION NUMBER: US/08/602,999
;
      FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
;
      REGISTRATION NUMBER: 18,872
      REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
  INFORMATION FOR SEQ ID NO: 409:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 18 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-10-161-791-409
  Query Match
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  Best Local Similarity 100.0%; Pred. No. 5.6e+02;
 Matches
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Qу
           3 PPPLP 7
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Db
RESULT 41
US-10-235-175-16
; Sequence 16, Application US/10235175
; Publication No. US20030166287A1
; GENERAL INFORMATION:
; APPLICANT: Es van, Helmuth
; APPLICANT: Havenga, Menzo
; APPLICANT: Verlinden, Stefan
  TITLE OF INVENTION: TARGETED DELIVERY THROUGH A CATIONIC AMINO ACID
; TITLE OF INVENTION: TRANSPORTER
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FILE REFERENCE: 2183-4080US
  CURRENT APPLICATION NUMBER: US/10/235,175
  CURRENT FILING DATE: 2002-09-04
   PRIOR APPLICATION NUMBER: US/09/315,926
   PRIOR FILING DATE: 1999-05-20
   PRIOR APPLICATION NUMBER: EP 99201593.3
   PRIOR FILING DATE: 1999-05-20
  PRIOR APPLICATION NUMBER: EP 98201693.3
  PRIOR FILING DATE: 1998-05-20
; NUMBER OF SEQ ID NOS: 81
  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 16
   LENGTH: 12
   TYPE: PRT
   ORGANISM: Artificial Sequence
   FEATURE:
   NAME/KEY: misc feature
 OTHER INFORMATION: Description of Artificial Sequence: phage display
   OTHER INFORMATION: peptide
US-10-235-175-16
                          73.8%; Score 31; DB 14; Length 12;
  Query Match
                          57.1%; Pred. No. 5.4e+02;
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Qу
              : |||:|
Db
            2 LMPPPVP 8
RESULT 42
US-09-879-957-143
; Sequence 143, Application US/09879957
; Patent No. US20020034755A1
    GENERAL INFORMATION:
         APPLICANT: SPARKS, Andrew B.
                    HOFFMAN, No. US20020034755A1h
                    KAY, Brian K.
                    FOWLKES, Dana M.
                    McCONNELL, Stephen J.
         TITLE OF INVENTION: POLYPEPTIDES HAVING A FUNCTIONAL
                             DOMAIN OF INTEREST AND METHODS OF IDENTIFYING AND
                             USING SAME
         NUMBER OF SEQUENCES: 227
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Pennie & Edmonds LLP
              STREET: 1155 Avenue of the Americas
              CITY: New York
              STATE: New York
              COUNTRY: USA
              ZIP: 10036-2711
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.30
         CURRENT APPLICATION DATA:
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APPLICATION NUMBER: US/09/879,957
              FILING DATE: 13-Jun-2001
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US 08/630,915
              FILING DATE: 03-APR-1996
        ATTORNEY/AGENT INFORMATION:
              NAME: Misrock, S. Leslie
              REGISTRATION NUMBER: 18,872
              REFERENCE/DOCKET NUMBER: 1101-174
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (212) 790-9090
              TELEFAX: (212) 869-8864/9741
              TELEX: 66141 PENNIE
    INFORMATION FOR SEQ ID NO: 143:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 13 amino acids
              TYPE: amino acid
              STRANDEDNESS: <Unknown>
              TOPOLOGY: unknown
        MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 143:
US-09-879-957-143
  Query Match
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  Best Local Similarity 71.4%; Pred. No. 5.8e+02;
  Matches
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           1 MQPPPLP 7
Qу
             : | | | | |
Db
            2 VQPPPPP 8
RESULT 43
US-10-185-050-8
; Sequence 8, Application US/10185050
; Publication No. US20030077577A1
    GENERAL INFORMATION:
        APPLICANT: Pirozzi, Gregorio
                    Kay, Brian K.
                    Fowlkes, Dana M.
         TITLE OF INVENTION: IDENTIFICATION AND ISOLATION OF NOVEL
                             POLYPEPTIDES HAVING WW DOMAINS AND METHODS OF USING
SAME
        NUMBER OF SEQUENCES: 233
;
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: PENNIE & EDMONDS LLP
              STREET: 1155 Avenue of the Americas
              CITY: New York
              STATE: New York
              COUNTRY: USA
              ZIP: 10036-2711
        COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.30
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CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/10/185,050
              FILING DATE: 28-Jun-2002
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US/08/826,516
              FILING DATE: 03-Apr-1997
        ATTORNEY/AGENT INFORMATION:
             NAME: MISROCK, S. LESLIE
              REGISTRATION NUMBER: 18,872
             REFERENCE/DOCKET NUMBER: 1101-208-999
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (212) 790-9090
             TELEFAX: (212) 896-8864/9741
             TELEX: 66141 PENNIE
    INFORMATION FOR SEQ ID NO: 8:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 13 amino acids
              TYPE: amino acid
              STRANDEDNESS: <Unknown>
             TOPOLOGY: unknown
        MOLECULE TYPE: peptide
        SEQUENCE DESCRIPTION: SEQ ID NO: 8:
US-10-185-050-8
  Query Match
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  Best Local Similarity 71.4%; Pred. No. 5.8e+02;
 Matches 5; Conservative 1; Mismatches 1; Indels
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           1 MQPPPLP 7
Qу
             : | | | | |
            2 VQPPPPP 8
Db
RESULT 44
US-10-185-050-87
; Sequence 87, Application US/10185050
; Publication No. US20030077577A1
   GENERAL INFORMATION:
        APPLICANT: Pirozzi, Gregorio
                    Kay, Brian K.
                    Fowlkes, Dana M.
         TITLE OF INVENTION: IDENTIFICATION AND ISOLATION OF NOVEL
                             POLYPEPTIDES HAVING WW DOMAINS AND METHODS OF USING
SAME
        NUMBER OF SEQUENCES: 233
         CORRESPONDENCE ADDRESS:
             ADDRESSEE: PENNIE & EDMONDS LLP
              STREET: 1155 Avenue of the Americas
              CITY: New York
              STATE: New York
              COUNTRY: USA
             ZIP: 10036-2711
       COMPUTER READABLE FORM:
             MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
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SOFTWARE: PatentIn Release #1.0, Version #1.30
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              FILING DATE: 28-Jun-2002
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US/08/826,516
              FILING DATE: 03-Apr-1997
        ATTORNEY/AGENT INFORMATION:
              NAME: MISROCK, S. LESLIE
              REGISTRATION NUMBER: 18,872
              REFERENCE/DOCKET NUMBER: 1101-208-999
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (212) 790-9090
              TELEFAX: (212) 896-8864/9741
              TELEX: 66141 PENNIE
    INFORMATION FOR SEQ ID NO: 87:
         SEQUENCE CHARACTERISTICS:
              LENGTH: 13 amino acids
              TYPE: amino acid
              STRANDEDNESS: <Unknown>
              TOPOLOGY: unknown
        MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 87:
US-10-185-050-87
  Query Match
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  Best Local Similarity 71.4%; Pred. No. 5.8e+02;
           5; Conservative 1; Mismatches 1; Indels 0; Gaps
           1 MQPPPLP 7
Qу
             : | | | | |
Db
            2 VQPPPPP 8
RESULT 45
US-10-393-815-235
; Sequence 235, Application US/10393815
; Publication No. US20030224413A1
; GENERAL INFORMATION:
; APPLICANT: Shimkets, Richard A
; APPLICANT: Leach, Martin
; TITLE OF INVENTION: Nucleic Acids Containing Single Nucleotide Polymorphisms
  TITLE OF INVENTION: And Methods of Use Thereof
  FILE REFERENCE: 15966-534B
; CURRENT APPLICATION NUMBER: US/10/393,815
; CURRENT FILING DATE: 2003-03-20
; PRIOR APPLICATION NUMBER: 60/109,024
 PRIOR FILING DATE: 1998-11-17
; NUMBER OF SEQ ID NOS: 320
  SOFTWARE: CuraGen Patent Formatter Version 0.9
; SEQ ID NO 235
   LENGTH: 14
   TYPE: PRT
   ORGANISM: Homo sapiens
   FEATURE:
   NAME/KEY: VARIANT
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LOCATION: (7)...(0)
  OTHER INFORMATION: cSNP translation
US-10-393-815-235
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  Best Local Similarity 66.7%; Pred. No. 6.1e+02;
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                                                                              0;
            2 QPPPLP 7
Qy
              : | | | : |
            3 EPPPVP 8
RESULT 46
US-10-161-791-301
; Sequence 301, Application US/10161791
; Publication No. US20030186863A1
   GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B.
    APPLICANT: KAY, Brian K.
APPLICANT: THORN, Judith M.
APPLICANT: QUILLIAM, Lawrence A.
;
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
    TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Pennie & Edmonds
      STREET: 1155 Avenue of the Americas
      CITY: New York
       STATE: New York
       COUNTRY: U.S.A.
       ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/10/161,791
       FILING DATE:
       CLASSIFICATION:
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999
       FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
       NAME: Misrock, S. Leslie
       REGISTRATION NUMBER: 18,872
       REFERENCE/DOCKET NUMBER: 1101-202
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: (212) 790-9090
       TELEFAX: (212) 869-9741/8864
       TELEX: 66141 PENNIE
   INFORMATION FOR SEQ ID NO: 301:
     SEQUENCE CHARACTERISTICS:
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LENGTH: 15 amino acids
      TYPE: amino acid
      TOPOLOGY: unknown
    MOLECULE TYPE: peptide
US-10-161-791-301
  Query Match
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  Best Local Similarity
                         83.3%; Pred. No. 6.5e+02;
  Matches 5; Conservative 0; Mismatches 1; Indels
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Qу
           2 OPPPLP 7
              ++++
Db
            1 OPPPRP 6
RESULT 47
US-10-161-791-344
; Sequence 344, Application US/10161791
; Publication No. US20030186863A1
; GENERAL INFORMATION:
    APPLICANT: SPARKS, Andrew B. APPLICANT: KAY, Brian K.
;
    APPLICANT: THORN, Judith M.
    APPLICANT: QUILLIAM, Lawrence A.
    APPLICANT: DER, Channing J.
    APPLICANT: FOWLKES, Dana M.
    APPLICANT: RIDER, James E.
    TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
  TITLE OF INVENTION: ISOLATING AND USING SAME
    NUMBER OF SEQUENCES: 467
    CORRESPONDENCE ADDRESS:
     ADDRESSEE: Pennie & Edmonds
       STREET: 1155 Avenue of the Americas
      CITY: New York
      STATE: New York
       COUNTRY: U.S.A.
       ZIP: 10036-2711
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
       COMPUTER: IBM PC compatible
       OPERATING SYSTEM: PC-DOS/MS-DOS
       SOFTWARE: PatentIn Release #1.0, Version #1.30
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/10/161,791
       FILING DATE:
       CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/602,999
       FILING DATE: 16-FEB-1996
    ATTORNEY/AGENT INFORMATION:
      NAME: Misrock, S. Leslie
       REGISTRATION NUMBER: 18,872
       REFERENCE/DOCKET NUMBER: 1101-202
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (212) 790-9090
      TELEFAX: (212) 869-9741/8864
      TELEX: 66141 PENNIE
```

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INFORMATION FOR SEQ ID NO: 344:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 16 amino acids
       TYPE: amino acid
       TOPOLOGY: unknown
     MOLECULE TYPE: peptide
US-10-161-791-344
  Query Match
                          73.8%; Score 31; DB 14; Length 16;
  Best Local Similarity
                          71.4%; Pred. No. 6.9e+02;
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                              1; Mismatches
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            1 MQPPPLP 7
Qу
              1:111
Db
            2 MRPPPPP 8
RESULT 48
US-10-185-050-10
; Sequence 10, Application US/10185050
; Publication No. US20030077577A1
    GENERAL INFORMATION:
        APPLICANT: Pirozzi, Gregorio
                    Kay, Brian K.
                    Fowlkes, Dana M.
         TITLE OF INVENTION: IDENTIFICATION AND ISOLATION OF NOVEL
                             POLYPEPTIDES HAVING WW DOMAINS AND METHODS OF USING
SAME
         NUMBER OF SEQUENCES: 233
;
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: PENNIE & EDMONDS LLP
              STREET: 1155 Avenue of the Americas
              CITY: New York
              STATE: New York
              COUNTRY: USA
              ZIP: 10036-2711
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Floppy disk
              COMPUTER: IBM PC compatible
              OPERATING SYSTEM: PC-DOS/MS-DOS
              SOFTWARE: PatentIn Release #1.0, Version #1.30
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/10/185,050
              FILING DATE: 28-Jun-2002
              CLASSIFICATION: <Unknown>
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US/08/826,516
              FILING DATE: 03-Apr-1997
         ATTORNEY/AGENT INFORMATION:
              NAME: MISROCK, S. LESLIE
              REGISTRATION NUMBER: 18,872
              REFERENCE/DOCKET NUMBER: 1101-208-999
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: (212) 790-9090
              TELEFAX: (212) 896-8864/9741
              TELEX: 66141 PENNIE
    INFORMATION FOR SEQ ID NO: 10:
```

```
SEQUENCE CHARACTERISTICS:
              LENGTH: 17 amino acids
              TYPE: amino acid
              STRANDEDNESS: <Unknown>
              TOPOLOGY: unknown
        MOLECULE TYPE: peptide
         SEQUENCE DESCRIPTION: SEQ ID NO: 10:
US-10-185-050-10
  Query Match
                         73.8%; Score 31; DB 14; Length 17;
  Best Local Similarity 71.4%; Pred. No. 7.3e+02;
 Matches 5; Conservative 1; Mismatches 1; Indels 0; Gaps
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           1 MOPPPLP 7
Qу
             : | | | | |
Db
           6 VQPPPPP 12
RESULT 49
US-10-062-710-77
; Sequence 77, Application US/10062710
; Publication No. US20030049253A1
; GENERAL INFORMATION:
; APPLICANT: Li, Frank Q.
; APPLICANT: Chu, Yong-Liang
; APPLICANT: Qiu, Jian-Tai
  TITLE OF INVENTION: Polymeric Conjugates for Delivery of
; TITLE OF INVENTION: MHC-Recognized Epitopes
; TITLE OF INVENTION: Via Peptide Vaccines
; FILE REFERENCE: 3781-001-27
; CURRENT APPLICATION NUMBER: US/10/062,710
; CURRENT FILING DATE: 2002-02-05
; PRIOR APPLICATION NUMBER: US 60/310,498
; PRIOR FILING DATE: 2001-08-08
; NUMBER OF SEQ ID NOS: 232
  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 77
; LENGTH: 10
   TYPE: PRT
   ORGANISM: Artificial Sequence
   OTHER INFORMATION: HIV CTL-Epitopes
US-10-062-710-77
  Query Match
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  Best Local Similarity 80.0%; Pred. No. 6.2e+02;
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           3 PPPLP 7
Qу
             111:1
           1 PPPIP 5
Db
RESULT 50
US-10-285-394-212
; Sequence 212, Application US/10285394
; Publication No. US20030228583A1
```

```
; GENERAL INFORMATION:
; APPLICANT: AMACHER, DAVID E.
; APPLICANT: FASULO, LISA M.
; APPLICANT: HERATH, HERATH MUDIYANSELAGE ATHULA CHANDRASIRI
; APPLICANT: HOLT, GORDON DUANE
; APPLICANT: STIGER, THOMAS R.
  TITLE OF INVENTION: BIOMARKERS OF LIVER RESPONSE
; FILE REFERENCE: POA-003.01
; CURRENT APPLICATION NUMBER: US/10/285,394
; CURRENT FILING DATE: 2003-02-07
; PRIOR APPLICATION NUMBER: 60/335,964
; PRIOR FILING DATE: 2001-10-31
; NUMBER OF SEQ ID NOS: 412
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 212
; LENGTH: 10
  TYPE: PRT
  ORGANISM: Homo sapiens
US-10-285-394-212
  Query Match 71.4%; Score 30; DB 15; Length 10; Best Local Similarity 80.0%; Pred. No. 6.2e+02;
  Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps
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Qу
           3 PPPLP 7
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            5 PPPIP 9
Db
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Search completed: July 4, 2004, 05:12:21

Job time : 15.7388 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

July 4, 2004, 04:33:51; Search time 11.9104 Seconds Run on:

(without alignments)

185.436 Million cell updates/sec

US-09-641-802-1 Title:

Perfect score: 42

Sequence: 1 MQPPPLP 7

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

1017041 segs, 315518202 residues Searched:

Total number of hits satisfying chosen parameters: 5664

Minimum DB seq length: 7 Maximum DB seg length: 18

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

SPTREMBL 25:* Database :

1: sp archea:*

2: sp bacteria:*

3: sp fungi:* 4: sp human:*

5: sp_invertebrate:*

6: sp_mammal:*

7: sp mhc:*

8: sp organelle:*

9: sp phage:*

10: sp_plant:*

11: sp_rodent:*

12: sp_virus:*
13: sp_vertebrate:*

14: sp_unclassified:*

15: sp_rvirus:*

16: sp bacteriap:*

17: sp archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result Query

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No. Score Match Length DB ID Description

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3	25	59.5	17	10 Q41400	Q41400 sesbania ro
4	25	59.5	18	12 Q84129	Q84129 influenzavi
5	24	57.1	9	5 Q9TWV0	Q9twv0 anthopleura
6	23	54.8	16	6 Q9TQZ7	Q9tqz7 bos taurus
7	23	54.8	17	4 Q9NQY8	Q9nqy8 homo sapien
8	22	52.4	14	2 P81715	P81715 streptomyce
9	22	52.4	16	6 Q9TRR1	Q9trrl oryctolagus
10	22	52.4	17	13 Q90XE2	Q90xe2 gallus gall
11	21	50.0	10	12 Q9Q0W9	Q9q0w9 polyomaviru
12	21	50.0	10	12 Q8JV70	Q8jv70 polyomaviru
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14	21	50.0	10	12 Q8JV68	Q8jv68 polyomaviru
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16	21	50.0	10	12 Q9Q0W7	Q9q0w7 polyomaviru
17	21	50.0	10	12 Q8JV66	Q8jv66 polyomaviru
18	21	50.0	10	12 Q9Q0V7	Q9q0v7 polyomaviru
19	21	50.0	10	12 Q8JV82	Q8jv82 polyomaviru
20	21	50.0	10	12 Q8JV76	Q8jv76 polyomaviru
21	21	50.0	10	12 Q8JV74	Q8jv74 polyomaviru
22	21	50.0	10	12 Q9Q0W5	Q9q0w5 polyomaviru
23	21	50.0	10	12 Q9Q0X3	Q9q0x3 polyomaviru
24	21	50.0	10	12 Q9Q0X5	
25	21	50.0	10	12 Q9Q0W3	Q9q0w3 polyomaviru
26	21	50.0	10	12 Q8JV80	Q8jv80 polyomaviru
27	21	50.0	10	12 Q9Q0X1	Q9q0x1 polyomaviru
28	21	50.0	10	12 Q9Q0X9	Q9q0x9 polyomaviru
29	21	50.0	10	12 Q8JV72	Q8jv72 polyomaviru
30	21	50.0	11	10 P82436	P82436 nicotiana t
31	21	50.0	11	13 Q8UUP1	Q8uup1 xenopus lae
32	21	50.0	12	4 Q9BZ49	Q9bz49 homo sapien
33	21	50.0	12	10 Q93X21	Q93x21 zea mays (m
34	21	50.0	15	4 Q9UCC2	Q9ucc2 homo sapien
35	21	50.0	15	6 Q9TR14	Q9tr14 bos taurus
36	21	50.0	15	10 Q9S8N8	Q9s8n8 hordeum vul
37	21	50.0	17	4 Q14001	Q14001 homo sapien
38	21	50.0	17	6 Q9TR22	Q9tr22 bos taurus
39	21	50.0	17	10 049225	049225 glycine max
40	21	50.0	18	4 Q8NFB4	Q8nfb4 homo sapien
41	21	50.0	18	4 Q9H1I3	Q9h1i3 homo sapien
42	21	50.0	18	11 Q9JIE9	Q9jie9 mus musculu
43	21	50.0	18	13 Q8QFT3	Q8qft3 gallus gall
44	20	47.6	9	4 Q9UCS8	Q9ucs8 homo sapien
45	20	47.6	11	4 Q8IVG8	Q8ivg8 homo sapien
46	20	47.6	12	10 P82441	P82441 nicotiana t
47	20	47.6	13	12 Q67604	Q67604 squash leaf
48	20	47.6	16	4 Q9UQS4	Q9uqs4 homo sapien
49	20	47.6	16	10 Q8RVF4	Q8rvf4 zea mays (m
50	20	47.6	17	4 Q96P96	Q96p96 homo sapien
51	19.5	46.4	17	6 Q9TR78	Q9tr78 didelphis m
52	19	45.2	9	4 Q9UMF3	Q9umf3 homo sapien
53	19	45.2	9	10 P82429	P82429 nicotiana t
54	19	45.2	10	10 P81898	P81898 prunus dulc
55	19	45.2	11	11 Q80WI1	Q80wil mus sp. nt-
56	19	45.2	12	10 P82328	P82328 pisum sativ
57	19	45.2	13	2 Q50476	Q50476 mycobacteri

67 19 45.2 18 13 Q90790 Q90790 gallus gall 68 18.5 44.0 17 13 Q9PS39 Q9ps39 carassius a 69 18 42.9 9 2 P83157 P83157 anabaena sp 70 18 42.9 9 10 Q9S8J8 Q9s8j8 oryza sativ 71 18 42.9 10 4 Q9UE86 Q9ue86 homo sapien 72 18 42.9 10 11 Q9QVF7 Q9qvf7 rattus sp. 73 18 42.9 10 11 Q8VHM9 Q8vhm9 mus musculu 74 18 42.9 11 4 Q9HCN5 Q9hcn5 homo sapien 75 18 42.9 12 2 Q8KZ86 Q8kz86 acinetobact 76 18 42.9 12 6 P83127 P83127 bos indicus 77 18 42.9 13 4 Q9UEE2 Q9uee2 homo sapien 78 18 42.9 13 4 Q14182 Q14182 homo sapien 79 18 42.9 13 4 Q14890 Q14890 homo sapien							
59 19 45.2 16 4 Q9UC52 Q9uc52 homo sapien 60 19 45.2 16 11 Q9DW5 Q9pru6 gallus gall 61 19 45.2 17 2 Q9R5J3 Q9r5j3 mycoplasma 62 19 45.2 17 2 Q9R5J3 Q9rru7 gallus gall 64 19 45.2 18 4 Q16053 Q16053 homo sapien 65 19 45.2 18 6 P79214 P79214 oryctolagus 66 19 45.2 18 13 Q90790 Q90790 gallus gall 66 19 45.2 18 13 Q90790 Q90790 gallus gall 66 18 45.2 18 13 Q90790 Q90790 gallus gall 67 19 45.2 18 13 Q90790 Q90790 gallus gall 68 18.5 44.0 17 13 Q99539 C9s839 carassius a 69 18 <	58	19	45.2	13	16	Q8X4F5	Q8x4f5 escherichia
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61 19 45.2 16 13 QPRU6 Q9pru6 gallus gall 62 19 45.2 17 2 Q9R5J3 Q9r5j3 Mycoplasma 63 19 45.2 17 13 Q9PRU7 Q9pru7 gallus gall 64 19 45.2 18 4 Q16053 Q16053 homo sapien 65 19 45.2 18 6 P79214 P79214 oryctolagus 66 19 45.2 18 11 P97522 P97522 rattus norw 67 19 45.2 18 11 P97522 P97522 rattus norw 67 19 45.2 18 13 Q90790 Q90790 gallus gall 68 18.5 44.0 17 13 Q9PS39 Q9ps39 carassius a 69 18 42.9 9 10 Q9S8J8 Q9ps39 carassius a 70 18 42.9 9 10 Q9S8J8 Q9s8j8 oryza sativ 71 18 42.9 10 4 Q9UE86 Q9ue86 homo sapien 72 18 42.9 10 11 Q9VF7 Q9qvf7 rattus sp. 73 18 42.9 10 11 Q8VHM9 Q8vhm9 mus musculu 74 18 42.9 10 11 Q8VHM9 Q8vhm9 mus musculu 74 18 42.9 10 4 Q9HE85 Q9hcn5 homo sapien 75 18 42.9 12 Q Q8KZ86 Q8kz86 acinetobact 76 18 42.9 12 Q Q8KZ86 Q8kz86 acinetobact 76 18 42.9 13 4 Q4182 Q9uee2 homo sapien 79 18 42.9 13 4 Q14182 Q14182 homo sapien 80 18 42.9 13 1 Q8VHE2 Q9uee2 homo sapien 80 18 42.9 13 1 Q8VBE2 Q9uee2 homo sapien 80 18 42.9 13 1 Q8VBE2 Q9uee2 homo sapien 80 18 42.9 13 1 Q8VBE2 Q9uee2 homo sapien 80 18 42.9 13 1 Q8VBE2 Q9uee2 homo sapien 80 18 42.9 13 1 Q8VBE2 Q9uee2 homo sapien 80 18 42.9 13 1 Q8VBE2 Q9uee2 homo sapien 80 18 42.9 13 1 Q8VBE2 Q9uee2 homo sapien 80 18 42.9 13 1 Q8VBE2 Q9uee2 homo sapien 80 18 42.9 13 1 Q8VBE2 Q9uee2 homo sapien 80 18 42.9 15 3 Q9UE63 Q8V3u6 tomato yell 81 82.9 14 12 Q8V3U6 Q8V3u6 tomato yell 82 18 42.9 15 3 Q9UE63 Q40563 nicotiana t 84 18 42.9 16 10 Q40563 Q40563 nicotiana t 85 18 42.9 16 12 Q83960 Q9U636 nicotiana t 86 18 42.9 16 12 Q83967 Q9U652 nicotiana t 90 18 42.9 16 12 Q83967 Q9U652 nicotiana t 19 18 42.9 16 12 Q83967 Q9U652 nicotiana t 19 18 42.9 16 15 Q8J6A6 Q8J6A6 Q8J6A6 human t-lym 95 18 42.9 16 15 Q8J6A6 Q8J6A6 Q8J6A6 human t-lym 96 18 42.9 16 15 Q8J6A6 Q8J6A6 Q8J6A6 human t-lym 97 18 42.9 16 15 Q8J6A0 Q8J6A6 Q8J6A6 human t-lym 98 18 42.9 16 15 Q8J6A0 Q8J6A6 Q8J6A6 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8J6A6 Q8J6A6 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8J6A6 Q8J6A6 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8J6A6 Q8J6A6 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8J6A6 Q8J6A6 hum	60	19	45.2	16	11	Q9QUW5	
62 19 45.2 17 2 Q9R5J3 Q9r5j3 mycoplasma 63 19 45.2 17 13 Q9PRUT Q9pruT gallus gall 64 19 45.2 18 4 Q16053 Q16053 homo sapien 65 19 45.2 18 11 P97522 P97522 rattus norv 66 19 45.2 18 11 P97522 P97522 rattus norv 67 19 45.2 18 13 Q90790 Q90790 gallus gall 68 18.5 44.0 17 13 Q9PS39 Q9ps39 carassius a 69 18 42.9 9 2 P83157 P83157 anabaena spien 70 18 42.9 9 10 Q9S8J8 Q9s8j8 oryza sativ 71 18 42.9 10 4 Q9UE86 Q9ue86 homo sapien 72 18 42.9 10 11 Q90VF7 Q9qvf7 rattus sp. 73 18 42.9 10 11 Q8VHM9 Q8vhm9 mus musculu 74 18 42.9 10 11 Q8VLM9 Q8vhm9 mus musculu 75 18 42.9 12 QBRZ86 Q8kz86 acinetobact 76 18 42.9 12 6 P83127 P83127 bos indicus 77 18 42.9 13 4 Q9UEE2 Q9uee2 homo sapien 78 18 42.9 13 4 Q14182 Q14182 homo sapien 79 18 42.9 13 4 Q14182 Q14182 homo sapien 80 18 42.9 13 10 R8116 O88176 mus musculu 81 18 42.9 14 10 P82326 P82326 pisum sativ 82 18 42.9 14 10 P82326 P82326 pisum sativ 82 18 42.9 14 10 P82326 P82326 pisum sativ 82 18 42.9 15 10 Q40562 Q40562 nicotiana t 84 18 42.9 15 10 Q40562 Q40562 nicotiana t 85 18 42.9 15 10 Q40563 Q9ur63 emericella 84 18 42.9 16 Q9NNZ2 Q9nnz2 homo sapien 89 18 42.9 16 12 Q83960 Q83960 influenzavi 90 18 42.9 16 12 Q83960 Q83960 influenzavi 91 18 42.9 16 12 Q83960 Q83960 influenzavi 92 18 42.9 16 15 Q8J6A6 Q8J663 human t-lym 94 18 42.9 16 15 Q8J6A3 Q8J663 human t-lym 95 18 42.9 16 15 Q8J6A3 Q8J663 human t-lym 96 18 42.9 16 15 Q8J6A5 Q8J6A5 Q8J663 human t-lym 97 18 42.9 16 15 Q8J6A5 Q8J6A5 Q8J663 human t-lym 98 18 42.9 16 15 Q8J6A5 Q8J6A5 Q8J663 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8J6A5 Q8J663 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8J6A5 Q8J663 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8J6A5 Q8J663 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8J6A5 Q8J663 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8J6A5 Q8J663 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8J6A5 D8J6A5 Q8J663 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8J6A5 Q8J6A5 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8J6A5 Q8J6A5 Q8J6A5 HAMAN T-lym	61	19	45.2	16	13		
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87 18 42.9 16 5 Q9TWN7 Q9twn7 toxoplasma 88 18 42.9 16 6 Q9BGG8 Q9bgg8 sorex arane 89 18 42.9 16 12 Q83967 Q83967 influenzavi 90 18 42.9 16 12 Q84055 Q84055 influenzavi 91 18 42.9 16 12 Q84055 Q8j699 human t-lym 92 18 42.9 16 15 Q8J699 Q8j636 human t-lym 93 18 42.9 16 15 Q8J6A6 Q8j6a6 human t-lym 94 18 42.9 16 15 Q8J6A1 Q8j6a1 human t-lym 95 18 42.9 16 15 Q8J6A3 Q8j6a3 human t-lym 96 18 42.9 16 15 Q8J6A7 Q8j6a7 human t-lym 97 18 42.9 16 15 Q8J6A0 Q8j6a0 human t-lym 98 18 42.9 16 15 Q8J6A0 Q8j6a5 human t-lym 99							
88 18 42.9 16 6 Q9BGG8 Q9bgg8 sorex arane 89 18 42.9 16 12 Q83967 Q83967 influenzavi 90 18 42.9 16 12 Q83960 Q83960 influenzavi 91 18 42.9 16 12 Q84055 Q84055 influenzavi 92 18 42.9 16 15 Q8J699 Q8j699 human t-lym 93 18 42.9 16 15 Q8J6A6 Q8j6a6 human t-lym 94 18 42.9 16 15 Q8J6A1 Q8j6a1 human t-lym 95 18 42.9 16 15 Q8J6A3 Q8j6a3 human t-lym 96 18 42.9 16 15 Q8J6A7 Q8j6a7 human t-lym 97 18 42.9 16 15 Q8J6A0 Q8j6a0 human t-lym 98 18 42.9 16 15 Q8J6A0 Q8j6a5 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8j6a5 human t-lym		18					
89 18 42.9 16 12 Q83967 Q83967 influenzavi 90 18 42.9 16 12 Q83960 Q83960 influenzavi 91 18 42.9 16 12 Q84055 Q84055 influenzavi 92 18 42.9 16 15 Q8J699 Q8j699 human t-lym 93 18 42.9 16 15 Q8J6A6 Q8j6a6 human t-lym 94 18 42.9 16 15 Q8J6A1 Q8j6a1 human t-lym 95 18 42.9 16 15 Q8J6A3 Q8j6a3 human t-lym 96 18 42.9 16 15 Q8J6A7 Q8j697 human t-lym 97 18 42.9 16 15 Q8J6A0 Q8j6a0 human t-lym 98 18 42.9 16 15 Q8J6A0 Q8j6a5 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8j6a5 human t-lym							
90							
91 18 42.9 16 12 Q84055 Q84055 influenzavi 92 18 42.9 16 15 Q8J699 Q8j699 human t-lym 93 18 42.9 16 15 Q8J6A6 Q8j6a6 human t-lym 94 18 42.9 16 15 Q8J6I4 Q8j6i4 human t-lym 95 18 42.9 16 15 Q8J6A1 Q8j6a1 human t-lym 96 18 42.9 16 15 Q8J6A3 Q8j6a3 human t-lym 97 18 42.9 16 15 Q8J6A7 Q8j63 human t-lym 98 18 42.9 16 15 Q8J6A0 Q8j6a0 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8j6a5 human t-lym						-	
92 18 42.9 16 15 Q8J699 Q8j699 human t-lym 93 18 42.9 16 15 Q8J6A6 Q8j6a6 human t-lym 94 18 42.9 16 15 Q8J614 Q8j6i4 human t-lym 95 18 42.9 16 15 Q8J6A1 Q8j6a1 human t-lym 96 18 42.9 16 15 Q8J6A3 Q8j6a3 human t-lym 97 18 42.9 16 15 Q8J697 Q8j697 human t-lym 98 18 42.9 16 15 Q8J6A0 Q8j6a0 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8j6a5 human t-lym							
93 18 42.9 16 15 Q8J6A6 Q8j6a6 human t-lym 94 18 42.9 16 15 Q8J6I4 Q8j6i4 human t-lym 95 18 42.9 16 15 Q8J6A1 Q8j6a1 human t-lym 96 18 42.9 16 15 Q8J6A3 Q8j6a3 human t-lym 97 18 42.9 16 15 Q8J697 Q8j697 human t-lym 98 18 42.9 16 15 Q8J6A0 Q8j6a0 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8j6a5 human t-lym							
94 18 42.9 16 15 Q8J614 Q8j6i4 human t-lym 95 18 42.9 16 15 Q8J6A1 Q8j6a1 human t-lym 96 18 42.9 16 15 Q8J6A3 Q8j6a3 human t-lym 97 18 42.9 16 15 Q8J697 Q8j697 human t-lym 98 18 42.9 16 15 Q8J6A0 Q8j6a0 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8j6a5 human t-lym							
95 18 42.9 16 15 Q8J6A1 Q8j6a1 human t-lym 96 18 42.9 16 15 Q8J6A3 Q8j6a3 human t-lym 97 18 42.9 16 15 Q8J697 Q8j697 human t-lym 98 18 42.9 16 15 Q8J6A0 Q8j6a0 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8j6a5 human t-lym							
96 18 42.9 16 15 Q8J6A3 Q8j6a3 human t-lym 97 18 42.9 16 15 Q8J697 Q8j697 human t-lym 98 18 42.9 16 15 Q8J6A0 Q8j6a0 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8j6a5 human t-lym							
97 18 42.9 16 15 Q8J697 Q8j697 human t-lym 98 18 42.9 16 15 Q8J6A0 Q8j6a0 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8j6a5 human t-lym							
98 18 42.9 16 15 Q8J6A0 Q8j6a0 human t-lym 99 18 42.9 16 15 Q8J6A5 Q8j6a5 human t-lym							
99 18 42.9 16 15 Q8J6A5 Q8j6a5 human t-lym							
· · · · · · · · · · · · · · · · · · ·							
100 18 42.9 16 15 Q8J6A2 Q8j6a2 human t-lym							
	100	18	42.9	16	15	Q8J6A2	Q8j6a2 human t-1ym

ALIGNMENTS

```
RESULT 1
Q9UCT9
    Q9UCT9
                 PRELIMINARY;
                                   PRT;
                                           18 AA.
ID
AC
    Q9UCT9;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DΤ
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
     PRG=PROLINE-rich glycoprotein (Fragment).
DE
os
     Homo sapiens (Human).
```

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
    Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
    NCBI TaxID=9606;
OX
RN
     [1]
RP
     SEQUENCE.
RX
    MEDLINE=91373355; PubMed=1894623;
RA
    Gillece-Castro B.L., Prakobphol A., Burlingame A.L., Leffler H.,
RA
     Fisher S.J.;
     "Structure and bacterial receptor activity of a human salivary
RT
    proline-rich glycoprotein.";
RT
     J. Biol. Chem. 266:17358-17368(1991).
RL
     GO; GO:0005576; C:extracellular; NAS.
DR
     GO; GO:0008368; F:Gram-negative bacterial binding; NAS.
DR
DR
     GO; GO:0009618; P:response to pathogenic bacteria; NAS.
    NON TER
FT
                  1
                          1
FT
    NON TER
                  18
                         18
SO
     SEQUENCE
                18 AA; 1780 MW; 961F6FB0A83D2E40 CRC64;
                          61.9%; Score 26; DB 4; Length 18;
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                          80.0%; Pred. No. 5.3e+02;
  Best Local Similarity
  Matches
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                                                  1; Indels
                                                                 0; Gaps
                                                                              0;
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Qу
              1111
Db
            4 PPPRP 8
RESULT 2
P82439
                                   PRT;
                                           15 AA.
ID
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AC
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     01-JUN-2000 (TrEMBLrel. 14, Created)
     01-JUN-2000 (TrEMBLrel. 14, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     200 kDa cell wall protein (Fragment).
DE
     Nicotiana tabacum (Common tobacco).
OS
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
OC
     lamiids; Solanales; Solanaceae; Nicotiana.
OX
     NCBI TaxID=4097;
RN
     [1]
     SEQUENCE.
RP
     STRAIN=cv. PETIT HAVANA;
RC
     Blee K.A., Bonham V.A., Mitchell G.P., Robertson D., Slabas A.R.,
RA
     Wojtaszek P., Bolwell G.P.;
RA
     "Proteomic study of secondary cell wall proteins from transformed
RT
RT
     tobacco culture.";
     Planta 0:0-0(2000).
RL
     -!- SUBCELLULAR LOCATION: CELL WALL.
CC
     -!- TISSUE SPECIFICITY: XYLEM.
CC
     GO; GO:0005618; C:cell wall; IEA.
DR
KW
     Cell wall; Hydroxylation.
FT
     MOD RES
                                  HYDROXYLATION.
                   6
                          6
                  15
                         15
FT
     NON TER
     SEQUENCE 15 AA; 1870 MW; 3E1E05A20A3C5681 CRC64;
SQ
                          59.5%; Score 25; DB 10; Length 15;
  Query Match
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```
Best Local Similarity
                          80.0%; Pred. No. 6.5e+02;
            4; Conservative
 Matches
                              0; Mismatches
                                                1; Indels
                                                                 0; Gaps
                                                                              0;
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Qу
              11111
Db
            6 PPPPP 10
RESULT 3
041400
ID
    Q41400
                PRELIMINARY;
                                   PRT;
                                           17 AA.
AC
    Q41400;
DT
    01-NOV-1996 (TrEMBLrel. 01, Created)
    01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
DT
    01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
    Hydroxyproline-rich protein (Fragment).
os
    Sesbania rostrata.
OC
    Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
    Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
OC
    eurosids I; Fabales; Fabaceae; Papilionoideae; Robinieae; Sesbania.
OX
    NCBI TaxID=3895;
RN
    [1]
RP
    SEQUENCE FROM N.A.
RC
    STRAIN=Sesbania rostrata;
RC
    TISSUE=Bacterial infected stem located root primordia;
    MEDLINE=96112737; PubMed=8664492;
RX
RA
    Goormachtig S., Valerio-Lepiniec M., Szczyglowski K., Van Montagu M.,
    Holsters M., De Bruijn F.;
RA
    "Use of differential display to identify novel Sesbania rostrata genes
RT
RT
    enhanced by Azorhizobium caulinodans infection.";
RL
    Mol. Plant Microbe Interact. 8:816-824(1995).
    EMBL; Z48673; CAA88592.1; -.
DR
DR
    PIR; S57991; S57991.
    NON TER
FT
SQ
    SEQUENCE
               17 AA; 2078 MW; 5060D27444515A22 CRC64;
 Query Match
                          59.5%; Score 25; DB 10; Length 17;
 Best Local Similarity
                          80.0%; Pred. No. 7.3e+02;
 Matches
            4; Conservative
                                0; Mismatches
                                                  1; Indels
                                                                 0; Gaps
                                                                              0;
            3 PPPLP 7
Qу
              1111
          10 PPPPP 14
RESULT 4
Q84129
ID
    Q84129
                PRELIMINARY;
                                   PRT;
                                           18 AA.
AC
    Q84129;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DT
    Influenza A/Swine/Wisconsin/OM/2 (H1N1), non-structural protein (Seq
DΕ
DE
     8), COOH terminus of NS1 (Fragment).
os
     Influenzavirus A.
OC
     Viruses; ssRNA negative-strand viruses; Orthomyxoviridae;
OC
     Influenza A viruses.
```

```
OX
     NCBI TaxID=197911;
RN
     [1]
RP
     SEQUENCE FROM N.A.
    MEDLINE=83303830; PubMed=6612993;
RX
     Parvin J.D., Young J.F., Palese P.;
RA
     "nonsense mutations affecting the lengths of the nsl nonstructural
RT
     proteins of influenza a virus isolates.";
RT
     Virology 128:512-517(1983).
RL
     EMBL: K00959; AAA43541.1; -.
DR
DR
     GO; GO:0003723; F:RNA binding; IEA.
     InterPro; IPR000256; Flu NS1.
DR
DR
     Pfam; PF00600; Flu NS1; 1.
     NON TER
FT
                  1
                        1
     SEQUENCE
              18 AA; 2105 MW; 87174BD420FFEBEF CRC64;
SQ
                          59.5%; Score 25; DB 12; Length 18;
  Query Match
                          100.0%; Pred. No. 7.7e+02;
  Best Local Similarity
            4; Conservative 0; Mismatches
                                                  0; Indels
                                                                             0;
  Matches
                                                                 0; Gaps
            4 PPLP 7
Qу
              1111
          11 PPLP 14
Db
RESULT 5
Q9TWV0
ID
     O9TWV0
                 PRELIMINARY;
                                   PRT;
                                            9 AA.
AC
     O9TWV0;
DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
    Antho-RPAMIDE=NEUROPEPTIDE.
DE
     Anthopleura elegantissima (Sea anemone).
os
     Eukaryota; Metazoa; Cnidaria; Anthozoa; Zoantharia; Actiniaria;
OC
OC
     Nynantheae; Actiniidae; Anthopleura.
OX
     NCBI TaxID=6110;
RN
    [1]
RP
     SEQUENCE.
     MEDLINE=93126143; PubMed=1480510;
RX
     Carstensen K., Rinehart K.L., McFarlane I.D., Grimmelikhuijzen C.J.;
RA
     "Isolation of Leu-Pro-Pro-Gly-Pro-Leu-Pro-Arg-Pro-NH2 (Antho-RPamide),
RT
     an N-terminally protected, biologically active neuropeptide from sea
RT
RT
     anemones.";
RL
     Peptides 13:851-857(1992).
     SEQUENCE 9 AA; 943 MW; 2908176737686777 CRC64;
SQ
                          57.1%; Score 24; DB 5; Length 9;
  Query Match
  Best Local Similarity
                          57.1%; Pred. No. 1e+06;
                                1; Mismatches
                                                                             0;
                                                  2; Indels
                                                                 0; Gaps
  Matches
            4; Conservative
            1 MOPPPLP 7
Qу
             : | | | |
            1 LPPGPLP 7
Db
RESULT 6
```

Q9TQZ7

```
ID
    O9TQZ7
                 PRELIMINARY;
                                   PRT:
                                           16 AA.
AC
    Q9TQZ7;
DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
DΤ
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
     01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
DT
DE
    Factor H (Fragment).
OS
    Bos taurus (Bovine).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC
     Bovidae; Bovinae; Bos.
OX
    NCBI TaxID=9913;
RN
    [1]
RP
    SEOUENCE.
    MEDLINE=96202005; PubMed=8615824;
RX
RA
     Soames C.J., Day A.J., Sim R.B.;
RT
     "Prediction from sequence comparisons of residues of factor H involved
RT
     in the interaction with complement component C3b.";
RL
     Biochem. J. 315:523-531(1996).
     SEQUENCE 16 AA; 1871 MW; 7052751E485EC825 CRC64;
SQ
  Query Match
                          54.8%; Score 23; DB 6; Length 16;
                          75.0%; Pred. No. 1.5e+03;
  Best Local Similarity
 Matches
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                                 1; Mismatches
                                                0; Indels
                                                                  0;
                                                                      Gaps
                                                                              0;
            2 OPPP 5
Qy
              : | | |
            5 EPPP 8
Db
RESULT 7
Q9NQY8
                                   PRT:
                                           17 AA.
ID
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                 PRELIMINARY;
AC
     Q9NQY8;
     01-OCT-2000 (TrEMBLrel. 15, Created)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
DT
DE
    Transcription factor 12 (Fragment).
GN
    TCF12.
OS
     Homo sapiens (Human).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
    NCBI_TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Gan T.-I., O'Sickey T., Zhang Y., Kim U.-J., Bina M.;
RA
     "Organization of the HTF4 Gene.";
RT
RL
     Submitted (MAY-2000) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AF271610; AAF82574.1; -.
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FΤ
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                          1
     NON TER
                  17
                         17
FT
     SEQUENCE
                17 AA; 1802 MW; E26E7FB1D7903679 CRC64;
SQ
  Query Match
                          54.8%; Score 23; DB 4; Length 17;
  Best Local Similarity
                          80.0%;
                                  Pred. No. 1.6e+03;
             4; Conservative
                                                 1; Indels
  Matches
                                 0; Mismatches
                                                                              0:
                                                                  0; Gaps
```

```
RESULT 8
P81715
ID
     P81715
                 PRELIMINARY;
                                   PRT:
                                           14 AA.
     P81715;
AC
DT
     01-JUN-2001 (TrEMBLrel. 17, Created)
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     Leupeptin-inactivating enzyme (EC 3.4.24.-) (LIE) (Fragment).
DE
OS
     Streptomyces exfoliatus (Streptomyces hydrogenans).
OC
     Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
     Streptomycineae; Streptomycetaceae; Streptomyces.
OC
OX
     NCBI TaxID=1905;
RN
     [1]
RP
     SEQUENCE.
RC
     STRAIN=SMF13;
     PubMed=9531495;
RX
RA
     Kim I.S., Kim Y.B., Lee K.J.;
RT
     "Characterization of the leupeptin-inactivating enzyme from
     Streptomyces exfoliatus SMF13 which produces leupeptin.";
RT
     Biochem. J. 331:539-545(1998).
RL
CC
     -!- FUNCTION: A LEUCINE-SPECIFIC METALLOPROTEASE THAT PLAYS A ROLE IN
         CONTROLLING THE AMOUNT OF LEUPEPTIN DURING COLONY DEVELOPMENT.
CC
CC
         OPTIMUM PH IS 9.0 AND TEMPERATURE IS 40 DEGREES CELSIUS.
CC
     -!- FUNCTION: DEGRADES LEUPEPTIN INTO THREE COMPONENTS, ACETYL-
         LEUCINE, LEUCINE AND ARGININAL.
CC
     -!- CATALYTIC ACTIVITY: HAS A STRICT PREFERENCE FOR LEUCINE AT THE P1
CC
CC
     -!- ENZYME REGULATION: ACTIVITY IS INHIBITED BY METALLOPROTEASE
CC
CC
         INHIBITORS AND ACTIVATED BY MG2+ AND CA2+.
     -!- SUBUNIT: MONOMER.
CC
CC
     -!- SUBCELLULAR LOCATION: SECRETED.
     GO; GO:0016787; F:hydrolase activity; IEA.
DR
     GO; GO:0008237; F:metallopeptidase activity; IEA.
DR
     Hydrolase; Metalloprotease.
KW
FT
     NON TER
                  14
                         14
                14 AA; 1373 MW; 14D627940C973260 CRC64;
SQ
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                          52.4%; Score 22; DB 2; Length 14;
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                          60.0%; Pred. No. 1.9e+03;
  Best Local Similarity
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                                                                 0; Gaps
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Qу
             11:1
Db
            4 PPDIP 8
RESULT 9
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                                           16 AA.
ID
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                 PRELIMINARY;
AC
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     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
```

```
Fibronectin 47 kDa fragment (Fragment).
DE
OS
    Oryctolagus cuniculus (Rabbit).
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OC
OX
    NCBI TaxID=9986;
RN
     [1]
RP
    SEQUENCE.
RX
    MEDLINE=92283375; PubMed=1597256;
    Lesot H., Fausser J.L., Akiyama S.K., Staub A., Black D., Kubler M.D.,
RA
RA
RТ
     "The carboxy-terminal extension of the collagen binding domain of
     fibronectin mediates interaction with a 165 kDa membrane protein
RT
RT
    involved in odontoblast differentiation.";
    Differentiation 49:109-118(1992).
RL
    NON TER
FT
                  1
                          1
    NON TER
FT
                  16
                         16
SO
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                          52.4%; Score 22; DB 6; Length 16;
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  Best Local Similarity
 Matches
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                                                   2; Indels
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                                                                              0;
            2 QPPPLP 7
Qу
              11 \cdot 1 \cdot 1
Db
            1 QPQPHP 6
RESULT 10
Q90XE2
                                           17 AA.
ID
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                                   PRT;
AC
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     01-DEC-2001 (TrEMBLrel. 19, Created)
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
    Transforming growth factor beta 4 (Fragment).
DE
    Gallus gallus (Chicken).
os
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC
     Gallus.
OX
    NCBI TaxID=9031;
RN
    [1]
RP
     SEQUENCE FROM N.A.
RA
     Pan H.J., Halper J.;
     "5' end sequence of chicken transforming growth factor beta 4.";
RT
     Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; AF395834; AAL05481.1; -.
FT
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                  17
                         17
                17 AA; 1721 MW; 5080B3551E71BD63 CRC64;
SO
     SEQUENCE
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                          52.4%;
                                  Score 22; DB 13; Length 17;
                          66.7%; Pred. No. 2.3e+03;
  Best Local Similarity
  Matches
             4; Conservative
                                 0; Mismatches
                                                                              0;
                                                  2; Indels
                                                                  0; Gaps
            1 MOPPPL 6
Qу
              \perp \perp \perp
Db
            1 MDPSPL 6
```

```
RESULT 11
Q9Q0W9
    0900W9
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                                   PRT;
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ID
AC
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     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
    01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DΤ
DE
    Large T antigen (Fragment).
os
     Polyomavirus JC.
OC
    Viruses; dsDNA viruses, no RNA stage; Polyomaviridae; Polyomavirus.
OX
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RN
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RP
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RX
    MEDLINE=20087544; PubMed=10618230;
RA
     Bofill-Mas S., Pina S., Girones R.;
     "Documenting the epidemiologic patterns of polyomaviruses in human
RT
    populations by studying their presence in urban sewage.";
RT
    Appl. Environ. Microbiol. 66:238-245(2000).
RL
DR
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FT
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Qy
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Db
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AC
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DТ
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     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DE
     Large T antigen (Fragment).
os
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OC
     Viruses; dsDNA viruses, no RNA stage; Polyomaviridae; Polyomavirus.
OX
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RN
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RX
     Bofill-Mas S., Formiga-Cruz M., Clemente-Casares P., Calafell F.,
RA
     Girones R.;
RA
     "Potential transmission of human polyomaviruses through the
RT
     gastrointestinal tract after exposure to virions or viral DNA.";
RT
     J. Virol. 75:10290-10299(2001).
RL
DR
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Qy
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Db
            7 PPP 9
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AC
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DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
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DE
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OS
    Viruses; dsDNA viruses, no RNA stage; Polyomaviridae; Polyomavirus.
OC
OX
    NCBI TaxID=10632;
RN
    [1]
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RX
     Bofill-Mas S., Pina S., Girones R.;
RA
RT
     "Documenting the epidemiologic patterns of polyomaviruses in human
RT
     populations by studying their presence in urban sewage.";
    Appl. Environ. Microbiol. 66:238-245(2000).
RL
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DR
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SO
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Qу
              +11
Db
            7 PPP 9
RESULT 14
Q8JV68
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AC
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     01-OCT-2002 (TrEMBLrel. 22, Created)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
\mathsf{DT}
DE
     Large T antigen (Fragment).
     Polyomavirus JC.
     Viruses; dsDNA viruses, no RNA stage; Polyomaviridae; Polyomavirus.
OC
OX
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RN
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     MEDLINE=21465052; PubMed=11581397;
RX
RA
     Bofill-Mas S., Formiga-Cruz M., Clemente-Casares P., Calafell F.,
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RA
     Girones R.;
RT
     "Potential transmission of human polyomaviruses through the
RT
     gastrointestinal tract after exposure to virions or viral DNA.";
     J. Virol. 75:10290-10299(2001).
RL
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DR
FT
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SO
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            3 PPP 5
Qу
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            7 PPP 9
Db
RESULT 15
Q9Q0V9
ID
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                 PRELIMINARY;
                                   PRT;
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AC
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DT
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     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DE
     Large T antigen (Fragment).
os
     Polyomavirus JC.
OC
    Viruses; dsDNA viruses, no RNA stage; Polyomaviridae; Polyomavirus.
OX
    NCBI TaxID=10632;
RN
    [1]
RP
    SEQUENCE FROM N.A.
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RA
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RT
     populations by studying their presence in urban sewage.";
RT
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                                                                             0;
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Qу
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            7 PPP 9
Db
RESULT 16
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ID
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                 PRELIMINARY;
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AC
     Q9Q0W7;
DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
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DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
DE
     Large T antigen (Fragment).
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os
     Polyomavirus JC.
     Viruses; dsDNA viruses, no RNA stage; Polyomaviridae; Polyomavirus.
OC
OX
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RN
     [1]
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RT
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RT
     populations by studying their presence in urban sewage.";
RL
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Qу
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Db
           7 PPP 9
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ID
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DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DE
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OS
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     Viruses; dsDNA viruses, no RNA stage; Polyomaviridae; Polyomavirus.
OC
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RN
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RA
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RA
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RT
RT
     gastrointestinal tract after exposure to virions or viral DNA.";
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RL
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            3 PPP 5
Qy
              111
Db
            7 PPP 9
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RESULT 18
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     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
DE
     Large T antigen (Fragment).
os
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OC
     Viruses; dsDNA viruses, no RNA stage; Polyomaviridae; Polyomavirus.
OX
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RN
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RP
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RT
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RT
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Qy
              111
            7 PPP 9
Db
RESULT 19
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ID
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AC
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DT
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DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DE
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OS
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OC
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OX
     NCBI TaxID=10632;
RN
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RA
RT
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RT
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RL
DR
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Best Local Similarity 100.0%; Pred. No. 2.1e+03;
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           3 PPP 5
Qу
             | \cdot |
           7 PPP 9
Db
RESULT 20
08JV76
ID
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                 PRELIMINARY;
                                   PRT;
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AC
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DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
DE
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OS
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OC
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    NCBI TaxID=10632;
OX
RN
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RT
     gastrointestinal tract after exposure to virions or viral DNA.";
RT
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RL
DR
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Qу
             \perp
Db
           7 PPP 9
RESULT 21
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ID
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AC
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DT
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
     Large T antigen (Fragment).
DE
os
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     Viruses; dsDNA viruses, no RNA stage; Polyomaviridae; Polyomavirus.
OC
OX
     NCBI TaxID=10632;
RN
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RP
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RX
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RA
     Bofill-Mas S., Formiga-Cruz M., Clemente-Casares P., Calafell F.,
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RA
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RT
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FT
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SQ
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                          100.0%; Pred. No. 2.1e+03;
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  Matches
             3; Conservative
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Qу
              I \mid I
            7 PPP 9
Db
RESULT 22
Q9Q0W5
ΙD
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AC
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DΤ
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     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
DΕ
     Large T antigen (Fragment).
OS
     Polyomavirus JC.
     Viruses; dsDNA viruses, no RNA stage; Polyomaviridae; Polyomavirus.
OC
OX
     NCBI TaxID=10632;
RN
    [1]
RР
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RC
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RX
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RA
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RT
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RT
     Appl. Environ. Microbiol. 66:238-245(2000).
RL
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FT
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  Matches
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                                                                  0; Gaps
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Qу
              \parallel \parallel \parallel
            7 PPP 9
Db
RESULT 23
Q9Q0X3
ID
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AC
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DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
DE
     Large T antigen (Fragment).
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os
     Polyomavirus JC.
OC
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OX
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RN
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RT
    populations by studying their presence in urban sewage.";
RT
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RL
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DR
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FT
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Qу
             -111
           7 PPP 9
Db
RESULT 24
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AC
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     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DE
    Large T antigen (Fragment).
os
     Polyomavirus JC.
    Viruses; dsDNA viruses, no RNA stage; Polyomaviridae; Polyomavirus.
OC
OX
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RN
    [1]
RP
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RT
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RT
RL
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DR
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                                                                 0; Gaps
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Qy
             111
Db
            7 PPP 9
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AC
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DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
DE
    Large T antigen (Fragment).
     Polyomavirus JC.
os
OC
     Viruses; dsDNA viruses, no RNA stage; Polyomaviridae; Polyomavirus.
OX
    NCBI TaxID=10632;
RN
     [1]
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RP
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RC
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RX
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RT
     "Documenting the epidemiologic patterns of polyomaviruses in human
RT
    populations by studying their presence in urban sewage.";
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RL
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FT
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                          100.0%; Pred. No. 2.1e+03;
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                                                  0; Indels
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Qv
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            7 PPP 9
Db
RESULT 26
08JV80
ID
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AC
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DT
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DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DE
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OS
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OC
     Viruses; dsDNA viruses, no RNA stage; Polyomaviridae; Polyomavirus.
OX
     NCBI TaxID=10632;
RN
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RX
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RA
     Girones R.;
RA
     "Potential transmission of human polyomaviruses through the
RT
     qastrointestinal tract after exposure to virions or viral DNA.";
RT
     J. Virol. 75:10290-10299(2001).
RL
DR
     EMBL; AF303945; AAM97794.1; -.
FT
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Qy
             111
Db
            7 PPP 9
RESULT 27
Q9Q0X1
     Q9Q0X1
                 PRELIMINARY;
                                   PRT;
                                            10 AA.
ID
AC
     Q9Q0X1;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DΤ
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
     Large T antigen (Fragment).
DE
os
     Polyomavirus JC.
OC
     Viruses; dsDNA viruses, no RNA stage; Polyomaviridae; Polyomavirus.
OX
     NCBI TaxID=10632;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=BCN15;
RC
     MEDLINE=20087544; PubMed=10618230;
RX
     Bofill-Mas S., Pina S., Girones R.;
RA
RT
     "Documenting the epidemiologic patterns of polyomaviruses in human
     populations by studying their presence in urban sewage.";
RT
     Appl. Environ. Microbiol. 66:238-245(2000).
RL
     EMBL; AF119349; AAF24104.1; -.
DR
FT
     NON TER
                   1
                          1
     SEOUENCE
                10 AA; 1167 MW; 4CD6A97771A32763 CRC64;
SQ
                          50.0%; Score 21; DB 12; Length 10;
  Query Match
  Best Local Similarity
                          100.0%; Pred. No. 2.1e+03;
  Matches
             3; Conservative
                                0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
                                                                              0:
            3 PPP 5
Qy
              \perp
            7 PPP 9
Db
RESULT 28
Q9Q0X9
                 PRELIMINARY;
                                   PRT;
                                            10 AA.
ΙD
     Q9Q0X9
AC
     Q9Q0X9;
     01-MAY-2000 (TrEMBLrel. 13, Created)
DT
DT
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
DE
     Large T antigen (Fragment).
     Polyomavirus JC.
OS
     Viruses; dsDNA viruses, no RNA stage; Polyomaviridae; Polyomavirus.
OC
OX
     NCBI TaxID=10632;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=BCNU;
     MEDLINE=20087544; PubMed=10618230;
RX
     Bofill-Mas S., Pina S., Girones R.;
RA
RT
     "Documenting the epidemiologic patterns of polyomaviruses in human
     populations by studying their presence in urban sewage.";
RT
```

```
RL
     Appl. Environ. Microbiol. 66:238-245(2000).
DR
     EMBL; AF119345; AAF24096.1; -.
FT
     NON TER
                   1
                          1
     SEQUENCE
                10 AA; 1167 MW; 4CD6A97771A32763 CRC64;
SQ
                          50.0%; Score 21; DB 12; Length 10;
  Query Match
                          100.0%; Pred. No. 2.1e+03;
  Best Local Similarity
                               0; Mismatches
                                                                  0;
  Matches
             3; Conservative
                                                 0; Indels
                                                                              0;
                                                                      Gaps
            3 PPP 5
Qу
              \mathbf{I}
            7 PPP 9
Db
RESULT 29
Q8JV72
                                   PRT;
                                           10 AA.
ΙD
     Q8JV72
                 PRELIMINARY;
AC
     Q8JV72;
     01-OCT-2002 (TrEMBLrel. 22, Created)
DΨ
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
     Large T antigen (Fragment).
DE
os
     Polyomavirus JC.
OC
     Viruses; dsDNA viruses, no RNA stage; Polyomaviridae; Polyomavirus.
OX
     NCBI_TaxID=10632;
RN
     [1]
RP
     SEOUENCE FROM N.A.
RC
     STRAIN-USA 4:
    MEDLINE=21465052; PubMed=11581397;
RX
     Bofill-Mas S., Formiga-Cruz M., Clemente-Casares P., Calafell F.,
RA
RA
     Girones R.;
     "Potential transmission of human polyomaviruses through the
RT
     gastrointestinal tract after exposure to virions or viral DNA.";
RT
RL
     J. Virol. 75:10290-10299(2001).
DR
     EMBL; AF304386; AAM97802.1; -.
FT
     NON TER
                   1
                          1
SQ
     SEQUENCE
                10 AA; 1167 MW; 4CD6A97771A32763 CRC64;
                          50.0%; Score 21; DB 12; Length 10;
  Query Match
                          100.0%; Pred. No. 2.1e+03;
  Best Local Similarity
                                0; Mismatches
  Matches
             3; Conservative
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            3 PPP 5
Qу
              Db
            7 PPP 9
RESULT 30
P82436
     P82436
                 PRELIMINARY;
                                   PRT:
                                           11 AA.
ID
     P82436;
AC
     01-JUN-2000 (TrEMBLrel. 14, Created)
DT
     01-JUN-2000 (TrEMBLrel. 14, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
     65 kDa cell wall protein (Fragment).
DΕ
     Nicotiana tabacum (Common tobacco).
OS
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
```

```
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
     lamiids; Solanales; Solanaceae; Nicotiana.
OC
     NCBI TaxID=4097;
OX
RN
     [1]
     SEQUENCE.
RP
     STRAIN=cv. PETIT HAVANA;
RC
    Blee K.A., Bonham V.A., Mitchell G.P., Robertson D., Slabas A.R.,
RA
RA
    Wojtaszek P., Bolwell G.P.;
     "Proteomic study of secondary cell wall proteins from transformed
RT
    tobacco culture.";
RT
    Planta 0:0-0(2000).
RL
    -!- SUBCELLULAR LOCATION: CELL WALL.
CC
    -!- TISSUE SPECIFICITY: XYLEM.
CC
DR
    GO; GO:0005618; C:cell wall; IEA.
KW
    Cell wall.
FT
    NON TER
                 11
                         11
SO
     SEQUENCE
               11 AA; 1068 MW; 34FD25CCB325B867 CRC64;
                          50.0%; Score 21; DB 10; Length 11;
  Query Match
                         100.0%; Pred. No. 2.3e+03;
  Best Local Similarity
                                                                 0; Gaps
                                                                             0;
            3; Conservative
                              0; Mismatches 0; Indels
            3 PPP 5
Qу
             111
           2 PPP 4
Db
RESULT 31
Q8UUP1
                                   PRT:
ID
    Q8UUP1
                 PRELIMINARY;
                                           11 AA.
AC
    O8UUP1;
     01-MAR-2002 (TrEMBLrel. 20, Created)
     01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT
    01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
DT
DE
    Beta-TrCP protein (Fragment).
    BETA-TRCP.
GN
os
    Xenopus laevis (African clawed frog).
OC
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
OC
     Xenopodinae; Xenopus.
OX
    NCBI TaxID=8355;
RN
     [1]
    SEQUENCE FROM N.A.
RP
RA
     Carnevali F.;
    Submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases.
RL
RN
    [2]
RP
    SEQUENCE FROM N.A.
RA
    Ballarino M.;
     "Analisi strutturale e funzionale del gene beta-TrCP in Xenopus
RT
RT
     laevis.";
     Thesis (2001), Department of Genetica e Biologia Molecolare,
RL
RL
     University of Rome La Sapienza, Rome, Italy.
     EMBL; AJ428930; CAD21927.1; -.
DR
FT
     NON TER
                  11
                         11
     SEQUENCE 11 AA; 1195 MW; CEB938EE35BEA5B9 CRC64;
SO
                          50.0%; Score 21; DB 13; Length 11;
  Query Match
```

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Best Local Similarity 75.0%; Pred. No. 2.3e+03;
                                                                 0; Gaps
  Matches
            3; Conservative 1; Mismatches 0; Indels
                                                                              0;
            1 MOPP 4
Qу
              : | | |
Db
            8 LQPP 11
RESULT 32
09BZ49
ID
     Q9BZ49
                 PRELIMINARY;
                                   PRT;
                                           12 AA.
AC
     09BZ49;
     01-JUN-2001 (TrEMBLrel. 17, Created)
DT
     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT
     01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
DT
DE
     Glycophorin C (Fragment).
os
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI_TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Patel S.S., Mehlotra R.K., Kastens W., Mgone C.S., Kazura J.W.,
RA
RA
     Zimmerman P.A.;
RT
     "The association of the glycophorin C exon 3 deletion with
RT
     ovalocytosis and malaria susceptibility in the Wosera, Papua New
RT
RL
     Submitted (JAN-2001) to the EMBL/GenBank/DDBJ databases.
DR
     EMBL; AF342984; AAK01459.1; -.
     NON TER
FT
                  1
                         1
     NON TER
                  12
FT
                         12
     SEOUENCE
                12 AA; 1361 MW; 2A07044DB8377378 CRC64;
SO
  Query Match
                          50.0%; Score 21; DB 4; Length 12;
                          100.0%; Pred. No. 2.4e+03;
  Best Local Similarity
             3; Conservative
                              0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                              0;
            3 PPP 5
Qу
              111
            9 PPP 11
Db
RESULT 33
Q93X21
                                           12 AA.
ID
     Q93X21
                 PRELIMINARY;
                                   PRT;
     Q93X21;
AC
DT
     01-DEC-2001 (TrEMBLrel. 19, Created)
     01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DΤ
     Polyubiquitin homolog (Fragment).
DE
OS
     Zea mays (Maize).
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
     Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
OC
OC
     PACCAD clade; Panicoideae; Andropogoneae; Zea.
OX
     NCBI TaxID=4577;
RN
     [1]
RP
     SEQUENCE FROM N.A.
```

```
RC
    STRAIN=cv. INRA 258; TISSUE=Leaf;
RX
    MEDLINE=96236829; PubMed=8680303;
RA
    Didierjean L., Frendo P., Nasser W., Genot G., Marivet J., Burkard G.;
RT
     "Heavy-metal-responsive genes in maize: identification and comparison
     of their expression upon various forms of abiotic stress.";
RT
RL
     Planta 199:1-8(1996).
    EMBL; S82313; AAB47175.1; -.
DR
    NON TER
FT
                   1
     SEOUENCE
                12 AA; 1277 MW; 250D2D2F6F340DD8 CRC64;
SO
                          50.0%; Score 21; DB 10; Length 12;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 2.4e+03;
             3; Conservative
 Matches
                                 0; Mismatches
                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
            3 PPP 5
Qy
             \pm 111
            2 PPP 4
Dh
RESULT 34
Q9UCC2
    Q9UCC2
                                   PRT;
ID
                 PRELIMINARY;
                                           15 AA.
AC
    Q9UCC2;
DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
DT
DE
     35 kDa heparin-RELEASABLE protein (Fragment).
    Homo sapiens (Human).
OS
OC
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
    Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
    NCBI TaxID=9606;
RN
    [1]
RP
    SEQUENCE.
    MEDLINE=94059921; PubMed=8241100;
RX
RA
    Novotny W.F., Maffi T., Mehta R.L., Milner P.G.;
     "Identification of novel heparin-releasable proteins, as well as the
RT
     cytokines midkine and pleiotrophin, in human postheparin plasma.";
RT
RL
    Arterioscler. Thromb. 13:1798-1805(1993).
SQ
     SEQUENCE
              15 AA; 1454 MW; 0585FEF4FE8F6265 CRC64;
                          50.0%; Score 21; DB 4; Length 15;
  Query Match
                          60.0%; Pred. No. 3e+03;
  Best Local Similarity
  Matches
             3; Conservative
                                 1; Mismatches
                                                                 0; Gaps
                                                                             0;
                                                   1; Indels
            3 PPPLP 7
Qу
             | |:|
            5 PVPIP 9
RESULT 35
09TR14
ΙD
     Q9TR14
                 PRELIMINARY;
                                           15 AA.
                                   PRT;
AC
     Q9TR14;
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
DT
DE
     Troponin-T homolog/proteolysis CONDITIONING INDICATOR peptide
```

```
(Fragment).
DE
OS
    Bos taurus (Bovine).
OC
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC
    Bovidae; Bovinae; Bos.
OX
    NCBI TaxID=9913;
RN
    [1]
    SEQUENCE.
RP
    MEDLINE=96187584; PubMed=8611748;
RX
    Nakai Y., Nishimura T., Shimizu M., Arai S.;
    "Effects of freezing on the proteolysis of beef during storage at 4
RT
RT
    degrees C.";
    Biosci. Biotechnol. Biochem. 59:2255-2258 (1995).
RL
SQ
    SEQUENCE 15 AA; 1597 MW; C98A5B44A79E4777 CRC64;
 Query Match
                         50.0%; Score 21; DB 6; Length 15;
 Best Local Similarity
                         100.0%; Pred. No. 3e+03;
 Matches
           3; Conservative 0; Mismatches
                                                 0; Indels 0; Gaps
                                                                            0;
           3 PPP 5
Qу
             +111
Db
           2 PPP 4
RESULT 36
Q9S8N8
    Q9S8N8
                PRELIMINARY;
                                  PRT;
                                          15 AA.
ID
AC
    Q9S8N8;
    01-MAY-2000 (TrEMBLrel. 13, Created)
DT
    01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
    01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
DT
    Protein E-22 (Fragment).
DE
    Hordeum vulgare (Barley).
os
    Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
OC
    Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
    Triticeae; Hordeum.
OC
OX
    NCBI TaxID=4513;
RN
    [1]
RP
    SEQUENCE.
    MEDLINE=94170739; PubMed=8125056;
RX
    Flengsrud R.;
RA
    "Separation of acidic barley endosperm proteins by two-dimensional
RT
RT
    electrophoresis.";
    Electrophoresis 14:1060-1066(1993).
RL
    SEQUENCE 15 AA; 1752 MW; C7D693937E908B9E CRC64;
SQ
 Query Match
                         50.0%; Score 21; DB 10; Length 15;
                         75.0%; Pred. No. 3e+03;
 Best Local Similarity
           3; Conservative 1; Mismatches
                                                 0; Indels
                                                                0; Gaps
                                                                            0;
 Matches
           1 MQPP 4
Qу
             :111
Db
           3 LQPP 6
RESULT 37
```

Q14001

```
014001
                                           17 AA.
ID
                 PRELIMINARY;
                                   PRT:
AC
     Q14001;
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DE
     Cyclic nucleotide phosphodiesterase (Fragment).
GN
     CGIPDE1.
     Homo sapiens (Human).
os
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
    MEDLINE=97079687; PubMed=8921398;
     Loebbert R.W., Winterpacht A., Seipel B., Zabel B.U.;
RA
RT
     "Molecular cloning and chromosomal assignment of the human homologue
RT
     of the rat cGMP-inhibited phosphodiesterase 1 (PDE3A)-A gene involved
RT
     in fat metabolism located at 11p15.1.";
     Genomics 37:211-218(1996).
RL
     EMBL; X95522; CAA64776.1; -.
DR
     NON TER
FT
                 17
                         17
     SEQUENCE
                17 AA; 2057 MW; 69D117C4FAE11540 CRC64;
SO
  Query Match
                          50.0%; Score 21; DB 4; Length 17;
                          75.0%; Pred. No. 3.4e+03;
  Best Local Similarity
                                 1; Mismatches
  Matches
             3; Conservative
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            1 MQPP 4
Qу
              :111
           14 LQPP 17
Db
RESULT 38
09TR22
     O9TR22
                                           17 AA.
ID
                 PRELIMINARY;
                                   PRT;
AC
     09TR22;
DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
DT
     01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
DE
     NONAMELOGENIN glycoprotein (Fragment).
OS
     Bos taurus (Bovine).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC
     Bovidae; Bovinae; Bos.
OX
     NCBI TaxID=9913;
RN
    [1]
     SEQUENCE.
RP
     MEDLINE=96126798; PubMed=8564801;
RX
     Punzi J.S., DenBesten P.K.;
RA
     "Purification of nonamelogenin proteins from bovine secretory
RT
RT
     enamel.";
     Calcif. Tissue Int. 57:379-384(1995).
RL
     SEQUENCE 17 AA; 2032 MW; 9D811CC8228B615D CRC64;
SO
                          50.0%; Score 21; DB 6; Length 17;
  Query Match
                          100.0%; Pred. No. 3.4e+03;
  Best Local Similarity
  Matches
             3; Conservative 0; Mismatches
                                                0; Indels
                                                                 0; Gaps
                                                                              0;
```

```
Qу
            3 PPP 5
              -111
            8 PPP 10
Db
RESULT 39
049225
ID
     049225
                 PRELIMINARY;
                                    PRT;
                                             17 AA.
AC
     049225;
     01-JUN-1998 (TrEMBLrel. 06, Created)
DT
     01-JUN-1998 (TrEMBLrel. 06, Last sequence update) 01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
DT
     Hydroxyproline-rich glycoprotein (Fragment).
DE
     HRGP.
GN
OS
     Glycine max (Soybean).
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids I; Fabales; Fabaceae; Papilionoideae; Phaseoleae; Glycine.
OC
OX
     NCBI TaxID=3847;
RN
     [1]
RP
     SEQUENCE FROM N.A.
     STRAIN=cv. Essex; TISSUE=Root;
RC
RX
     MEDLINE=94211912; PubMed=8159793;
     Hong J.C., Cheong Y.H., Nagao R.T., Bahk J.D., Cho M.J., Key J.L.;
RA
     "Isolation and characterization of three soybean extensin cDNAs.";
RT
     Plant Physiol. 104:793-796(1994).
RL
RN
     [2]
     SEQUENCE FROM N.A.
RP
RC
     STRAIN=cv. Essex; TISSUE=Root;
    Mahalingam R., Knap H.T.;
     Submitted (FEB-1998) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AF047052; AAC03558.1; -.
DR
     NON TER
FΤ
                   1
     SEQUENCE
SO
                17 AA; 2149 MW; 285E5874515A2222 CRC64;
  Query Match
                           50.0%; Score 21; DB 10; Length 17;
  Best Local Similarity
                           100.0%; Pred. No. 3.4e+03;
  Matches
            3; Conservative
                                 0; Mismatches
                                                     0; Indels
                                                                    0; Gaps
                                                                                0;
            3 PPP 5
Qу
              111
           11 PPP 13
Db
RESULT 40
Q8NFB4
ID
     Q8NFB4
                 PRELIMINARY;
                                    PRT;
                                             18 AA.
AC
     Q8NFB4;
DT
     01-OCT-2002 (TrEMBLrel. 22, Created)
     01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT
     01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
DT
DΕ
     Mutant enamelin (Fragment).
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI_TaxID=9606;
```

```
[1]
RN
    SEQUENCE FROM N.A.
RP
    Kida M., Ariga T.;
    "Autosomal-dominant hypoplastic form of amelogenesis imperfecta caused
RT
RT
    by an enamelin gene mutation at exon-intron boundary.";
RL
    J. Dent. Res. 0:0-0(2002).
DR
    EMBL; AF530444; AAM97323.1; -.
FT
    NON TER
                 1
                         1
    NON TER
                 18
FT
                        18
    SEQUENCE 18 AA; 1893 MW; 492D2B2E3E8BE512 CRC64;
SO
                         50.0%; Score 21; DB 4; Length 18;
 Query Match
 Best Local Similarity 100.0%; Pred. No. 3.6e+03;
                                                                0; Gaps
 Matches
           3; Conservative 0; Mismatches 0; Indels
                                                                            0;
           3 PPP 5
Qу
             111
           3 PPP 5
Db
RESULT 41
Q9H1I3
                PRELIMINARY;
                                  PRT;
                                          18 AA.
ID
    Q9H1I3
AC
    O9H1I3;
    01-MAR-2001 (TrEMBLrel. 16, Created)
DT
    01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
DT
    01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DT
    Retinoic acid receptor gamma (Fragment).
DE
    Homo sapiens (Human).
OS
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
    Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
    NCBI TaxID=9606;
RN
     [1]
    SEQUENCE FROM N.A.
RP
RA
    Xu H., Clifford J.L.;
    "Genomic organization of the human retinoic acid receptor gamma
RT
RT
    gene.";
RL
    Submitted (NOV-2000) to the EMBL/GenBank/DDBJ databases.
    EMBL; AY013704; AAG41595.1; -.
DR
    GO; GO:0004872; F:receptor activity; IEA.
KW
    Receptor.
    NON TER
FT
                  1
                         1
FT
    NON TER
                 18
                        18
    SEQUENCE 18 AA; 1964 MW; A284A1EFBB361A22 CRC64;
SO
                         50.0%; Score 21; DB 4; Length 18;
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                         60.0%; Pred. No. 3.6e+03;
 Matches
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                               1; Mismatches 1; Indels 0; Gaps
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           3 PPPLP 7
Qу
             1 1:1
Db
          12 PGPMP 16
RESULT 42
Q9JIE9
ID Q9JIE9
                PRELIMINARY;
                             PRT;
                                          18 AA.
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AC
     O9JIE9;
     01-OCT-2000 (TrEMBLrel. 15, Created)
DT
     01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
     Protein arginine N-methyltransferase 1 (Fragment).
DE
GN
    MRMT1.
OS
    Mus musculus (Mouse).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX
     NCBI TaxID=10090;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=20307889; PubMed=10848611;
     Pawlak M.R., Scherer C.A., Chen J., Roshon M.J., Ruley H.E.;
RA
     "Arginine N-methyltransferase 1 is required for early postimplantation
RT
RT
     mouse development, but cells deficient in the enzyme are viable.";
RL
    Mol. Cell. Biol. 20:4859-4869(2000).
DR
     EMBL; AF232718; AAF37294.1; -.
     GO; GO:0008168; F:methyltransferase activity; IEA.
DR
     GO; GO:0016740; F:transferase activity; IEA.
KW
     Methyltransferase; Transferase.
     NON TER
FT
                   1
                          1
                  18
                         18
     NON TER
\mathbf{FT}
SQ
     SEQUENCE
                18 AA; 1931 MW; 392E2C312C4A8372 CRC64;
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                          75.0%; Pred. No. 3.6e+03;
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                                 1; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0;
            1 MQPP 4
Qу
              :111
           12 LOPP 15
RESULT 43
080FT3
     Q8QFT3
                 PRELIMINARY;
                                   PRT;
                                            18 AA.
ΙD
     Q8QFT3;
AC
DT
     01-JUN-2002 (TrEMBLrel. 21, Created)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     Sterol regulatory element binding protein 1 (Fragment).
DE
     SREBP-1.
GN
os
     Gallus gallus (Chicken).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC
     Gallus.
     NCBI_TaxID=9031;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
     Assaf S., Pitel F., Morisson M., Alizadeh M., Gondret F., Diot C.,
RA
RA
     Leclercq B., Vignal A., Douaire M., Lagarrique S.;
RT
     "Partial cloning, tissue expression, chromosomal localisation of
RT
     chicken SREBP genes and relationships to fatness variability in
RT
     genetically fat and lean chicken lines.";
     Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
RL
DR
     EMBL; AJ441122; CAD29619.1; -.
```

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NON TER
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FT
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                                                  0; Indels
                                                                 0; Gaps
                                                                             0;
            3 PPP 5
Qу
              III
          15 PPP 17
Dh
RESULT 44
Q9UCS8
ID
     Q9UCS8
                 PRELIMINARY;
                                   PRT;
                                            9 AA.
AC
     Q9UCS8;
DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DΕ
    Apolipoprotein A-I (Fragment).
os
    Homo sapiens (Human).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
oc
OC
    Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
    NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE.
RX
    MEDLINE=92075698; PubMed=1742316;
     Ehnholm C., Bozas S.E., Tenkanen H., Kirszbaum L., Metso J.,
RA
    Murphy B., Walker I.D.;
RA
     "The apolipoprotein A-I binding protein of placenta and the SP-40,40
RT
     protein of human blood are different proteins which both bind to
RT
     apolipoprotein A-I.";
RT
     Biochim. Biophys. Acta 1086:255-260(1991).
RL
     GO; GO:0005576; C:extracellular; ISS.
DR
     GO; GO:0005319; F:lipid transporter activity; NAS.
DR
     GO; GO:0008203; P:cholesterol metabolism; ISS.
DR
DR
     GO; GO:0006869; P:lipid transport; ISS.
FT
     NON TER
                   1
                          1
     NON TER
FT
                   9
                          9
     SEQUENCE
                9 AA; 981 MW; 7FE37775A6C7776B CRC64;
SQ
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                                                                             0;
  Matches
                                 1; Mismatches
                                                   2; Indels
                                                                 0; Gaps
            2 QPPPLP 7
Qу
              : | |
            2 EPPOSP 7
Db
RESULT 45
Q8IVG8
                                   PRT;
                                           11 AA.
ID
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                 PRELIMINARY;
AC
     Q8IVG8;
     01-MAR-2003 (TrEMBLrel. 23, Created)
DT
DT
     01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
```

```
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE
     Low density lipoprotein receptor related protein 1 (Fragment).
GN
OS
    Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
    NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
    TISSUE=Blood;
     Schulz S., Schagdarsurengin U., Greiser P., Birkenmeier G.,
RA
    Muller-Werdan U., Hagemann M., Riemann D., Werdan K., Glaser C.;
RA
RT
     "The LDL receptor-related protein (LRP1/A2MR) and coronary
RT
     atherosclerosis - novel genomic variants and functional
RT
     consequences.";
RL
     Submitted (NOV-2002) to the EMBL/GenBank/DDBJ databases.
DR
    EMBL; Y18524; CAD57169.1; -.
DR
    GO; GO:0004872; F:receptor activity; IEA.
KW
     Receptor; Lipoprotein.
FT
    NON TER
                 11
                         11
SQ
     SEQUENCE
                11 AA; 1221 MW; 373D041E27273777 CRC64;
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                          66.7%; Pred. No. 3.3e+03;
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  Matches
             4; Conservative
                                                                 0; Gaps
                                                                              0;
            1 MQPPPL 6
Οv
              1 111
            1 MLTPPL 6
Db
RESULT 46
P82441
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                                           12 AA.
ΙD
     P82441
                                   PRT;
AC
     01-JUN-2000 (TrEMBLrel. 14, Created)
DT
     01-JUN-2000 (TrEMBLrel. 14, Last sequence update)
DT
DT
     01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
     26 kDa cell wall protein (Fragment).
os
     Nicotiana tabacum (Common tobacco).
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC
     lamiids; Solanales; Solanaceae; Nicotiana.
OX
     NCBI TaxID=4097;
RN
    [1]
     SEQUENCE.
RP
     STRAIN=cv. PETIT HAVANA;
RC
     Blee K.A., Bonham V.A., Mitchell G.P., Robertson D., Slabas A.R.,
RA
     Wojtaszek P., Bolwell G.P.;
RA
RT
     "Proteomic study of secondary cell wall proteins from transformed
RT
     tobacco culture.";
     Planta 0:0-0(2000).
RL
CC
     -!- SUBCELLULAR LOCATION: CELL WALL.
     -!- TISSUE SPECIFICITY: XYLEM.
DR
     GO; GO:0005618; C:cell wall; IEA.
KW
     Cell wall.
FT
     NON_TER
                  12
                         12
```

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SEOUENCE
              12 AA; 1234 MW; 340012240872C9D7 CRC64;
SO
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  Best Local Similarity
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  Matches
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                                                  1; Indels
                                                                  0; Gaps
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Qу
             \square
            2 PPAP 5
Db
RESULT 47
067604
ID
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                                   PRT;
                                           13 AA.
AC
     067604;
DT
     01-NOV-1996 (TrEMBLrel. 01, Created)
DT
     01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
     01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
     Movement protein (Fragment).
DE
GN
     BC1.
OS
     Squash leaf curl virus.
     Viruses; ssDNA viruses; Geminiviridae; Begomovirus.
OC
     NCBI TaxID=10829;
OX
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=Los Mochis 1;
     Loniello A.O., Ford R.E., Salinas R.A., Morales F.J., Maxwell D.P.;
RA.
RT
     "Diversity among geminiviruses associated with vegetables from Valle
     del Fuerte, Sinaloa, Mexico.";
RT:
     Submitted (JAN-1994) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; L27273; AAA47820.1; -.
DR
FT
     NON TER
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                          1
     NON TER
FT
                  13
                         13
                13 AA; 1376 MW; D471DE4D634E76C2 CRC64;
     SEQUENCE
SO
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  Best Local Similarity
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                                1; Mismatches
                                                 0; Indels
                                                                  0; Gaps
                                                                              0;
            1 MOPP 4
Qу
              : | | |
Db
            6 VQPP 9
RESULT 48
Q9UQS4
ΙD
     Q9UQS4
                 PRELIMINARY;
                                   PRT;
                                            16 AA.
AC
     09UOS4;
DT
     01-MAY-2000 (TrEMBLrel. 13, Created)
     01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT
     01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
DT
DE
     Glycoprotein Ib alpha variant D (Fragment).
OS
     Homo sapiens (Human).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
OX
     NCBI TaxID=9606;
RN
     [1]
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RP
     SEQUENCE FROM N.A.
RX
     MEDLINE=92250564; PubMed=1577776;
RA
     Lopez J.A., Ludwig E.H., McCarthy B.J.;
RT
     "Polymorphism of human glycoprotein Ib alpha results from a variable
RT
     number of tandem repeats of a 13-amino acid sequence in the mucin-like
RT
     macroglycopeptide region. Structure/function implications.";
RL
     J. Biol. Chem. 267:10055-10061(1992).
DR
     EMBL; $34436; AAB22152.1; -.
FT
     NON TER
                   1
                          1
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                16 AA; 1638 MW; 81472B42262EF630 CRC64;
SO
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  Best Local Similarity
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Db
            5 EPAPSP 10
RESULT 49
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ID
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                                   PRT;
                                           16 AA.
AC
     O8RVF4;
     01-JUN-2002 (TrEMBLrel. 21, Created)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT
     01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DT
     Proline rich protein (Fragment).
DE
os
     Zea mays (Maize).
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
OC
     Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
     PACCAD clade; Panicoideae; Andropogoneae; Zea.
OC
OX
     NCBI TaxID=4577;
RN
     [1]
RP
     SEQUENCE FROM N.A.
RC
     STRAIN=cv. H98, and cv. C123;
RA
     Ching A.S., Caldwell K.S., Jung M., Dolan M., Smith O.S., Tingey S.,
     Morgante M., Rafalski J.A.;
RA
RT
     "SNP frequency, haplotype structure and linkage disequilibrium in
RT
     elite maize inbred lines.";
     Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
RL
     EMBL; AY094252; AAM15707.1; -.
DR
DR
     EMBL; AY094253; AAM15708.1; -.
     NON TER
FT
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Qу
              1 111
Db
           10 QCPPL 14
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RESULT 50 Q96P96

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ID
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AC
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    01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
    01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
DT
    NHP2-like protein (Fragment).
DΕ
os
    Homo sapiens (Human).
OC
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
    NCBI TaxID=9606;
RN
    [1]
RP
    SEQUENCE FROM N.A.
    Kang H.S., Park Y.J., Jung H.M., Jun D.Y., Huh T.L., Kim Y.H.;
RA
     "Characterization of TPA-responsive genes in U937 cells using ordered
RT
RT
    differential display PCR.";
    Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
RL
DR
    EMBL; AF401217; AAL02173.1; -.
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SQ
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Qу
             :1 111
          10 VQSLPLP 16
Db
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Search completed: July 4, 2004, 04:45:22

Job time : 16.9104 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: July 4, 2004, 04:33:26; Search time 2.40299 Seconds

(without alignments)

151.683 Million cell updates/sec

Title: US-09-641-802-1

Perfect score: 42

Sequence: 1 MQPPPLP 7

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 141681 segs, 52070155 residues

Total number of hits satisfying chosen parameters: 952

Minimum DB seq length: 7
Maximum DB seq length: 18

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database: SwissProt 42:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		8					
Result		Query			•		
No.	Score	Match	Length	DB	ID	Descrip	otion
1	26	61.9	17	1	APID_BOMPA		bombus pasc
2	25	59.5	10	1	TMOF_AEDAE	P19425	aedes aegyp
3	23	54.8	11	1	BPP_AGKHP	P04562	agkistrodon
4	23	54.8	13	1	TY13_PHYRO	· P04096	phyllomedus
5	22	52.4	15	1	URE2 MORMO	P17338	morganella
6	22	52.4	17	1	A45K MYCBO	P80069	mycobacteri
7	21	50.0	15	1	PRP MYCBO	P80149	mycobacteri
8	21	50.0	15	1	UC29 MAIZE	P80635	zea mays (m
9	21	50.0	16	1	IBP4_PIG	P24854	sus scrofa
10	20	47.6	16	1	FOR2_MYRGU	P81437	myrmecia gu
11	19	45.2	11	1	BPP3_BOTIN	P30423	bothrops in
12	19	45.2	11	1	BPP4_BOTIN	P30424	bothrops in
13	19	45.2	11	1	BPPB_AGKHA	P01021	agkistrodon
14	19	45.2	11	1	MORN HUMAN	P01163	homo sapien
15	19	45.2	12	1	FIF1 SARBU	P83349	sarcophaga
16	19	45.2	17	1	PSBL_SYNVU	P12241	synechococc
17	18	42.9	9	1	YBFR AZOVI	P25825	azotobacter

1.0	1.0	42.0		-1	mTNA HODET	D02654	h 1 - b - b
18	18	42.9	11	1	TIN4_HOPTI		hoplobatrac
19	18	42.9	11	1	TKN1_UPERU		uperoleia r
20	18	42.9	12	1	TIN2_HOPTI		hoplobatrac
21	18	42.9	12	1	TIN3_HOPTI	P82653	hoplobatrac
22	18	42.9	13	1	PEDI HYDAT	P80578	hydra atten
23	18	42.9	14	1	ECDC LYMDI		lymantria d
24	18	42.9	15	1	AF1L MALPA		malva parvi
25	18	42.9	15	1	MK1 PALPR		palomena pr
26	18	42.9	15	1	MK2A PALPR		palomena pr
20 27	18	42.9	16	1	FOR1 MYRGU		-
					_		myrmecia gu
28	18	42.9	16	1	MK2B_PALPR		palomena pr
29	18	42.9	16	1	MK3_PALPR		palomena pr
30	17	40.5	10	1	BPP8_BOTIN		bothrops in
31	17	40.5	11	1	LADD_ONCMY		oncorhynchu
32	17	40.5	11	1	TKN1_PSEGU		pseudophryn
33	17	40.5	11	1	TKN2_PSEGU	P42987	pseudophryn
34	17	40.5	11	1	TKN3 PSEGU	P42988	pseudophryn
35	17	40.5	11	1	TKN4 PSEGU		pseudophryn
36	17	40.5	11	1	TKN5 PSEGU		pseudophryn
37	17	40.5	12	1	TKN2 KASMA		kassina mac
38	17	40.5	13	1	GER1 HORVU		hordeum vul
39	17	40.5	13	1	GER2 HORVU		hordeum vul
							canis famil
40	17	40.5	13	1	SODM_CANFA		
41	17	40.5	15	1	SODM_ENTAE		enterobacte
42	16	38.1	8	1	PPK2_PERAM		periplaneta
43	16	38.1	9	1	FAR9_ASCSU		ascaris suu
44	16	38.1	9	1	MGMT_BOVIN	P29177	bos taurus
45	16	38.1	10	1	AH3_PRUSE	P29261	prunus sero
46	16	38.1	10	1	BPP2_BOTIN	P30422	bothrops in
47	16	38.1	10	1	BPP2 BOTJA		bothrops ja
48	16	38.1	10	1	UPA2 HUMAN		homo sapien
49	16	38.1	11	1	TIN1 HOPTI		hoplobatrac
50	16	38.1	12	1	TM2A METMA		methanosarc
51	16	38.1	13	1	AH4 PRUSE		prunus sero
52	16	38.1	15	1	AH2 PRUSE		prunus sero
53	16	38.1	15	1	NUO8 SOLTU		solanum tub
			15				
54	16	38.1		1	SODM_STRGR		streptomyce
55	16	38.1	16	1	AH1_PRUSE		prunus sero
56	15	35.7	7	1	TPFY_PACDA		pachymedusa
57	15	35.7	7	1	UF04_MOUSE		mus musculu
58	15	35.7	9	1	COXE_THUOB		thunnus obe
59	15	35.7	9	1	KNL3_BOMVA		bombina var
60	15	35.7	9	1	LMT3_LOCMI	P41489	locusta mig
61	15	35.7	10	1	BRK_ONCMY	Q9prz1	oncorhynchu
62	15	35.7	10	1	URE3 MORMO	P17339	morganella
63	15	35.7	11	1	BRK MEGFL	P12797	megascolia
64	15	35.7	12	1	FAR7 PENMO		penaeus mon
65	15	35.7	12	1	TKN1 KASMA		kassina mac
66	15	35.7	13	1	BLAC STRGR		streptomyce
67	15	35.7	13	1	BPP1 BOTJA		bothrops ja
68	15	35.7	13	1	BRK PARID		parapolybia
					_		
69 70	15	35.7	13	1	MP1_MICOC		microplitis
70	15	35.7	14	1	CAL1_CALGI		calotropis
71	15	35.7	14	1	PH1_PRUSE		prunus sero
72	15	35.7	15	1	CBPB_PROAT		protopterus
73	15	35.7	15	1	PH3_PRUSE		prunus sero
74	15	35.7	15	1	UBL1_MONDO	P50103	monodelphis

75	15	35.7	15	1	UC19_MAIZE	P80625	zea mays (m
76	15	35.7	15	1	UC30_MAIZE		zea mays (m
77	15	35.7	15	1	UP01 METAN	P83440	metarhizium
78	15	35.7	16	1	H5 COTJA	P18638	coturnix co
79	15	35.7	16	1	LPK1_LOCMI	P20404	locusta mig
80	15	35.7	16	1	PH2 PRUSE	P29264	prunus sero
81	15	35.7	17	1	VESP_VESMC	P57672	vespula mac
82	14	33.3	8	1	ALL5_CALVO	P41841	calliphora
83	14	33.3	8	1	VGLG_HSV2B	P81780	herpes simp
84	14	33.3	10	1	BPP_VIPAS	P31351	vipera aspi
85	14	33.3	10	1	GON1_ALLMI	P37041	alligator m
86	14	33.3	10	1	RT02_BOVIN	P82923	bos taurus
87	14	33.3	10	1	UPA5_HUMAN	P30091	homo sapien
88	14	33.3	10	1	UPA8_HUMAN	P30094	homo sapien
89	14	33.3	11	1	TKNA_HORSE	P01290	equus cabal
90	14	33.3	11	1	TKNA_RANCA	P22688	rana catesb
91	14	33.3	13	1	EI21_LITRU	P82097	litoria rub
92	14	33.3	13	1	EI22_LITRU		litoria rub
93	14	33.3	15	1	CHI1_PEA		pisum sativ
94	14	33.3	15	1	CXA2_CONAL		conus aulic
95	14	33.3	15	1	UC06_MAIZE	P80612	zea mays (m
96	14	33.3	15	1	UE15_HORVU	P34938	hordeum vul
97	14	33.3	15	1	UP02_METAN		metarhizium
98	14	33.3	16	1	AF1S_MALPA		malva parvi
99	14	33.3	16	1	AF2S_MALPA		malva parvi
100	14	33.3	16	1	CXA1_CONAL	P56639	conus aulic

ALIGNMENTS

```
RESULT 1
APID BOMPA .
    APID BOMPA
                    STANDARD;
                                   PRT;
                                           17 AA.
AC
     P81464;
DT
     15-DEC-1998 (Rel. 37, Created)
     15-DEC-1998 (Rel. 37, Last sequence update)
DT
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Apidaecin.
os
     Bombus pascuorum (Brown bumble bee).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Hymenoptera; Apocrita; Aculeata; Apoidea;
     Apidae; Bombus.
OC
OX
     NCBI_TaxID=65598;
RN
    [1]
RP
     SEQUENCE.
RC
     TISSUE=Hemolymph;
RX
     MEDLINE=97362903; PubMed=9219367;
RA
     Rees J.A., Moniatte M., Bulet P.;
RT
     "Novel antibacterial peptides isolated from a European bumblebee,
     Bombus pascuorum (Hymenoptera, Apoidea).";
RT
RL
     Insect Biochem. Mol. Biol. 27:413-422(1997).
CC
     -!- FUNCTION: Antibacterial peptide active against Gram-negative
CC
         bacteria.
CC
     -!- INDUCTION: By bacterial infection.
DR
     InterPro; IPR004828; Apidaecin.
DR
     Pfam; PF00807; Apidaecin; 1.
```

```
KW
     Insect immunity; Antibiotic; Hemolymph.
SQ
     SEQUENCE
               17 AA; 1963 MW; CD1D0D02C8BC23D1 CRC64;
  Query Match
                          61.9%; Score 26; DB 1; Length 17;
                          80.0%; Pred. No. 1.2e+02;
  Best Local Similarity
             4; Conservative
                                 0; Mismatches
                                                   1; Indels
                                                                  0; Gaps
                                                                              0;
            3 PPPLP 7
Qу
              +++
            8 PPPRP 12
Db
RESULT 2
TMOF AEDAE
     TMOF AEDAE
                    STANDARD;
                                   PRT;
                                           10 AA.
AC
     P19425;
DT
     01-NOV-1990 (Rel. 16, Created)
     01-NOV-1990 (Rel. 16, Last sequence update)
DT
     01-FEB-1996 (Rel. 33, Last annotation update)
DT
    Trypsin-modulating oostatic factor (TMOF) (OOSH).
DE
os
     Aedes aegypti (Yellowfever mosquito).
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea; Aedes.
OC
OX
    NCBI TaxID=7159;
RN
     [1]
     SEQUENCE.
RP
RC
     STRAIN=Vero beach; TISSUE=Ovary;
     MEDLINE=90367888; PubMed=2394318;
RX
     Borovsky D., Carlson D.A., Griffin P.R., Shabanowitz J., Hunt D.F.;
RA
     "Mosquito oostatic factor: a novel decapeptide modulating
RT
RT
     trypsin-like enzyme biosynthesis in the midgut.";
     FASEB J. 4:3015-3020(1990).
RL
RN
     [2]
     SEQUENCE.
RP
RC
     STRAIN=Vero beach; TISSUE=Ovary;
     MEDLINE=93357794; PubMed=8353526;
RX
     Borovsky D., Carlson D.A., Griffin P.R., Shabanowitz J., Hunt D.F.;
RA
RT
     "Mass spectrometry and characterization of Aedes aegypti trypsin
RT
     modulating oostatic factor (TMOF) and its analogs.";
RL
     Insect Biochem. Mol. Biol. 23:703-712(1993).
CC
     -!- FUNCTION: Has an oostatic activity. Inhibits trypsin biosynthesis
CC
         in the midgut which indirectly reduces the vitellogenin
CC
         concentration in the hemolymph resulting in inhibition of oocyte
CC
         development.
CC
     -!- DEVELOPMENTAL STAGE: Synthesized and released from follicular
CC
         epithelium 18-24 hrs after a blood meal. Synthesis peaks at
CC
         36 hrs and stops at 56 hrs.
DR
     PIR; A36454; A36454.
KW
     Hormone.
                   3
FT
     DOMAIN
                         10
                                  POLY-PRO.
                                  YD \rightarrow DY (IN TMFO(B)).
FT
     VARIANT
                   1
                          2
                10 AA; 1047 MW; 236D0A7777776DC7 CRC64;
SO
     SEQUENCE
                          59.5%;
  Query Match
                                  Score 25; DB 1; Length 10;
  Best Local Similarity
                          80.0%; Pred. No. 1e+02;
             4; Conservative
                                 0; Mismatches
  Matches
                                                  1; Indels
                                                                  0; Gaps
                                                                              0;
```

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Qу
            3 PPPLP 7
             -1111
Db
            5 PPPPP 9
RESULT 3
BPP AGKHP
                                   PRT;
                                           11 AA.
     BPP AGKHP
                    STANDARD;
ID
     P04562;
AC
DT
     13-AUG-1987 (Rel. 05, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
     Bradykinin-potentiating peptide (Angiotensin-converting
DE
DE
     enzyme inhibitor).
     Agkistrodon halys pallas (Chinese water mocassin) (Gloydius halys
OS
     pallas).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
oc
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
     Viperidae; Crotalinae; Gloydius.
OC
     NCBI TaxID=8714;
OX
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Venom;
    MEDLINE=86177022; PubMed=3008123;
RX
     Chi C.-W., Wang S.-Z., Xu L.-G., Wang M.-Y., Lo S.-S., Huang W.-D.;
RA
     "Structure-function studies on the bradykinin potentiating peptide
RT
     from Chinese snake venom (Agkistrodon halys pallas).";
RT
     Peptides 6 Suppl. 3:339-342(1985).
RL
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
CC
     PIR; JC0002; XAVIBH.
DR
     Hypotensive agent; Pyrrolidone carboxylic acid.
ΚW
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                11 AA; 1112 MW; 30BABF1277686777 CRC64;
     SEQUENCE
SO
  Query Match
                          54.8%; Score 23; DB 1; Length 11;
  Best Local Similarity
                          75.0%; Pred. No. 2.2e+02;
                               1; Mismatches
  Matches
             3; Conservative
                                                  0; Indels
                                                                  0;
                                                                      Gaps
            4 PPLP 7
Qу
              11:1
            7 PPIP 10
Db
RESULT 4
TY13 PHYRO
     TY13 PHYRO
                                    PRT;
                                            13 AA.
                    STANDARD;
ID
AC
     P04096;
     01-NOV-1986 (Rel. 03, Created)
DT
     01-NOV-1986 (Rel. 03, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Tryptophyllin-13.
DE
     Phyllomedusa rohdei (Rohde's leaf frog).
os
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Hylidae;
OC
```

```
Phyllomedusinae; Phyllomedusa.
OC
OX
     NCBI TaxID=8394;
RN
     [1]
RP
     SEOUENCE.
RA
    Montecucchi P.C., Gozzini L., Erspamer V.;
RT
     "Primary structure determination of a tryptophan-containing
RT
     tridecapeptide from Phyllomedusa rohdei.";
RL
     Int. J. Pept. Protein Res. 27:175-182(1986).
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
DR
     PIR; A05174; A05174.
     Amphibian defense peptide; Pyrrolidone carboxylic acid.
KW
FT
     MOD RES
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
                   1
                13 AA; 1646 MW; 33BF33A212227773 CRC64;
SO
     SEOUENCE
  Query Match
                          54.8%; Score 23; DB 1; Length 13;
  Best Local Similarity
                          75.0%; Pred. No. 2.6e+02;
                                                                 0; Gaps
  Matches
            3; Conservative
                                1; Mismatches
                                                  0; Indels
                                                                              0;
            3 PPPL 6
Qу
             111:
            7 PPPI 10
Db
RESULT 5
URE2 MORMO
    URE2 MORMO
                                   PRT;
                                           15 AA.
ID
                    STANDARD;
AC
     P17338;
DΤ
     01-AUG-1990 (Rel. 15, Created)
     01-AUG-1990 (Rel. 15, Last sequence update)
DT
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
     Urease beta subunit (EC 3.5.1.5) (15 kDa subunit) (Urea
DE
     amidohydrolase) (Fragment).
DE
GN
     UREB.
OS
     Morganella morganii (Proteus morganii).
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Morganella.
OC
OX
     NCBI TaxID=582;
RN
    [1]
RP
     SEOUENCE.
     MEDLINE=90264298; PubMed=2345135;
RX
     Hu L.-T., Nicholson E.B., Jones B.D., Lynch M.J., Mobley H.L.T.;
RA
RT
     "Morganella morganii urease: purification, characterization, and
     isolation of gene sequences.";
RT
     J. Bacteriol. 172:3073-3080(1990).
RL
     -! - CATALYTIC ACTIVITY: Urea + H(2)0 = CO(2) + 2 NH(3).
CC
CC
     -!- SUBUNIT: (Alpha, beta, gamma)(3) (By similarity).
CC
     -!- SIMILARITY: Belongs to the urease beta subunit family.
     PIR; B35389; B35389.
DR
KW
     Hydrolase.
     NON TER
                  15
FT
                         15
     SEQUENCE
                15 AA; 1530 MW; 2D98944F2F20C7E8 CRC64;
SO
  Query Match
                          52.4%; Score 22; DB 1; Length 15;
  Best Local Similarity
                          80.0%; Pred. No. 4.2e+02;
                                                                              0:
             4; Conservative
                                 0; Mismatches
                                                                  0; Gaps
  Matches
                                                   1; Indels
```

```
2 QPPPL 6
Qу
             Db
            5 QPTPL 9
RESULT 6
A45K MYCBO
    A45K MYCBO
                    STANDARD;
                                   PRT;
                                           17 AA.
    P80069;
AC
    01-JUL-1993 (Rel. 26, Created)
DT
DT
    01-JUL-1993 (Rel. 26, Last sequence update)
    01-OCT-1996 (Rel. 34, Last annotation update)
DT
DE
    45/47 kDa antigen (Fragment).
os
    Mycobacterium bovis.
    Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
OC
OC
    Corynebacterineae; Mycobacteriaceae; Mycobacterium.
OX
    NCBI TaxID=1765;
RN
    [1]
    SEQUENCE.
RΡ
    STRAIN=BCG / Paris 1173 P2;
RC
    MEDLINE=93138802; PubMed=8423100;
RX
    Romain F., Laqueyrerie A., Militzer P., Pescher P., Chavarot P.,
RA
    Lagranderie M., Auregan G., Gheorghiu M., Marchal G.A.;
RA
RT
    "Identification of a Mycobacterium bovis BCG 45/47-kilodalton antigen
RT
    complex, an immunodominant target for antibody response after
RT
    immunization with living bacteria.";
    Infect. Immun. 61:742-750(1993).
RL
CC
    -!- SUBCELLULAR LOCATION: Secreted.
    -!- SIMILARITY: TO M.LEPRAE NL43, AND M.TUBERCULOSIS MPT32.
CC
DR
    PIR; A49237; A49237.
KW
    Antigen.
    NON TER
                  17
                         17
FΤ
    SEOUENCE
SO
               17 AA; 1521 MW; 4492CC389D9D9893 CRC64;
  Query Match
                          52.4%; Score 22; DB 1; Length 17;
  Best Local Similarity
                          75.0%; Pred. No. 4.8e+02;
 Matches
            3; Conservative
                                 1; Mismatches
                                                                              0;
                                                  0; Indels
                                                                  0; Gaps
            4 PPLP 7
Qу
              11:1
Db
            6 PPVP 9
RESULT 7
PRP MYCBO
    PRP MYCBO
                                   PRT;
ID
                    STANDARD;
                                           15 AA.
AC
     P80149;
     01-JUL-1993 (Rel. 26, Created)
     01-JUL-1993 (Rel. 26, Last sequence update)
DT
     01-JUL-1993 (Rel. 26, Last annotation update)
DΤ
DE
    Proline-rich protein (Fragment).
os
    Mycobacterium bovis.
OC
    Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
OC
     Corynebacterineae; Mycobacteriaceae; Mycobacterium.
OX
    NCBI TaxID=1765;
RN
     [1]
RP
     SEQUENCE.
```

```
RC
     STRAIN=BCG / Paris 1173 P2;
RX
     MEDLINE=93281750; PubMed=8506381;
RA
     Romain F., Augier J., Pescher P., Marchal G.A.;
RT
     "Isolation of a proline-rich mycobacterial protein eliciting delayed-
     type hypersensitivity reactions only in guinea pigs immunized with
RT
RT
     living mycobacteria.";
RL
     Proc. Natl. Acad. Sci. U.S.A. 90:5322-5326(1993).
     -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- DISEASE: IMMUNODOMINANT FOR DELAYED-TYPE HYPERSENSITIVITY
CC
         REACTIONS IN GUINEA PIGS.
FT
     NON TER
                 15
                        15
     SEQUENCE
                15 AA; 1612 MW; 22659F848B922773 CRC64;
SO
  Query Match
                          50.0%; Score 21; DB 1; Length 15;
                         100.0%; Pred. No. 5.9e+02;
  Best Local Similarity
            3; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
  Matches
                                                                             0;
            3 PPP 5
Qу
             -111
            7 PPP 9
Db
RESULT 8
UC29 MAIZE
                                   PRT;
     UC29 MAIZE
                    STANDARD;
                                           15 AA.
ID
AC
     P80635;
     01-OCT-1996 (Rel. 34, Created)
DT
     01-OCT-1996 (Rel. 34, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Unknown protein from 2D-page of etiolated coleoptile (Spot 45)
DE
DE
     (Fragment).
OS
     Zea mays (Maize).
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
OC
OC
     PACCAD clade; Panicoideae; Andropogoneae; Zea.
OX
     NCBI TaxID=4577;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Coleoptile;
RA
     Touzet P., Riccardi F., Morin C., Damerval C., Huet J.-C.,
     Pernollet J.-C., Zivy M., de Vienne D.;
RA
RT
     "The maize two dimensional gel protein database: towards an integrated
RT
     genome analysis program.";
     Theor. Appl. Genet. 93:997-1005(1996).
RL
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
CC
         protein is: 4.9, its MW is: 37.6 kDa.
DR
     Maize-2DPAGE; P80635; COLEOPTILE.
DR
     MaizeDB; 123960; -.
     NON TER
FT
                   1
     NON TER
FT
                  15
                         15
     SEQUENCE 15 AA; 1679 MW; 3D53086B16018BC1 CRC64;
SQ
                          50.0%; Score 21; DB 1; Length 15;
  Query Match
                          60.0%; Pred. No. 5.9e+02;
  Best Local Similarity
           3; Conservative 1; Mismatches 1; Indels
  Matches
                                                                 0; Gaps
                                                                             0;
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RESULT 9
IBP4 PIG
ID
    IBP4 PIG
                    STANDARD;
                                   PRT;
                                           16 AA.
AC
     P24854;
     01-MAR-1992 (Rel. 21, Created)
DT
     01-MAR-1992 (Rel. 21, Last sequence update)
DT
    28-FEB-2003 (Rel. 41, Last annotation update)
DE
    Insulin-like growth factor binding protein 4 (IGFBP-4) (IBP-4)
DE
     (IGF-binding protein 4) (Fragment).
GN
    IGFBP4.
OS
    Sus scrofa (Pig).
OC
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX
    NCBI TaxID=9823;
RN
     [1]
RP
    SEQUENCE.
    MEDLINE=92109718; PubMed=1722398;
RX
RA
    Coleman M.E., Pan Y.-C.E., Etherton T.D.;
RT
    "Identification and NH2-terminal amino acid sequence of three
RT
    insulin-like growth factor-binding proteins in porcine serum.";
RL
    Biochem. Biophys. Res. Commun. 181:1131-1136(1991).
CC
    -!- FUNCTION: IGF-binding proteins prolong the half-life of the IGFs
CC
         and have been shown to either inhibit or stimulate the growth
CC
         promoting effects of the IGFs on cell culture. They alter the
CC
         interaction of IGFs with their cell surface receptors.
CC
    -!- SUBCELLULAR LOCATION: Secreted.
CC
    -!- SIMILARITY: Contains 1 IGFBP domain.
CC
    -!- SIMILARITY: Contains 1 thyroglobulin type-I domain.
    PIR; JH0517; JH0517.
DR
    InterPro; IPR000867; Insl_gro_fac_pr.
DR
    InterPro; IPR000716; Thyroglobulin 1.
DR
    PROSITE; PS00222; IGF BINDING; PARTIAL.
DR
    PROSITE; PS00484; THYROGLOBULIN 1; PARTIAL.
DR
KW
    Growth factor binding.
FT
    NON TER
                  16
                         16
    SEQUENCE
SQ
                16 AA; 1799 MW; 40988840096655E2 CRC64;
  Query Match
                          50.0%; Score 21; DB 1; Length 16;
  Best Local Similarity 100.0%; Pred. No. 6.3e+02;
 Matches
            3; Conservative
                               0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            3 PPP 5
Qу
             -111
Db
            7 PPP 9
RESULT 10
FOR2 MYRGU
    FOR2 MYRGU
ID
                    STANDARD;
                                   PRT:
                                           16 AA.
     P81437;
AC
DT
     15-DEC-1998 (Rel. 37, Created)
     15-DEC-1998 (Rel. 37, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
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DE
     Formaecin 2.
OS
    Myrmecia gulosa (Red bulldog ant).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
    Neoptera; Endopterygota; Hymenoptera; Apocrita; Aculeata; Vespoidea;
OC
     Formicidae; Myrmeciinae; Myrmeciini; Myrmecia.
OX
     NCBI_TaxID=36170;
RN
     [1]
RP
     SEQUENCE, AND CARBOHYDRATE-LINKAGE SITE THR-11.
     TISSUE=Hemolymph:
RC
RX
    MEDLINE=98165787; PubMed=9497332;
    Mackintosh J.A., Veal D.A., Beattie A.J., Gooley A.A.;
RA
RT
     "Isolation from an ant Myrmecia gulosa of two inducible
RT
     O-glycosylated proline-rich antibacterial peptides.";
RL
     J. Biol. Chem. 273:6139-6143(1998).
CC
     -!- FUNCTION: Antibacterial peptide. Has activity against E.coli but
CC
         none against other Gram-negative bacteria and Gram-positive
CC
         bacteria.
CC
    -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- INDUCTION: By bacterial infection.
     -!- PTM: O-LINKED GLYCAN CONSISTS OF A GAL-GALNAC DISACCHARIDE, O-
CC
         GLYCOSYLATION IS ESSENTIAL FOR FULL BIOLOGICAL ACTIVITY.
CC
CC
     -!- SIMILARITY: TO DROSOPHILA DROSOCIN.
KW
    Antibiotic; Glycoprotein; Insect immunity; Hemolymph.
FT
     CARBOHYD
                  11
                         11
                                  O-LINKED (GALNAC. . .).
                16 AA; 1807 MW; 9C3CA3B00BC2E0AE CRC64;
SQ
     SEQUENCE
                          47.6%; Score 20; DB 1; Length 16;
  Query Match
                          50.0%; Pred. No. 8.8e+02;
  Best Local Similarity
                                                                              0;
  Matches
            3; Conservative 1; Mismatches 2; Indels
                                                                 0;
                                                                     Gaps
            2 OPPPLP 7
Qу
             :1 1 1
            9 KPTPYP 14
Db
RESULT 11
BPP3 BOTIN
     BPP3 BOTIN
ID
                    STANDARD;
                                   PRT;
                                           11 AA.
     P30423;
AC
DT
     01-APR-1993 (Rel. 25, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DΤ
DΕ
     Bradykinin-potentiating peptide S4,3,2 (10C) (Angiotensin-converting
DE
     enzyme inhibitor).
     Bothrops insularis (Island jararaca) (Queimada jararaca).
os
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Bothrops.
OC
OX
     NCBI TaxID=8723;
RN
     [1]
RP
     SEOUENCE.
RC
     TISSUE=Venom;
RX
    MEDLINE=90351557; PubMed=2386615;
     Cintra A.C.O., Vieira C.A., Giglio J.R.;
RA
RT
     "Primary structure and biological activity of bradykinin potentiating
RT
     peptides from Bothrops insularis snake venom.";
RL
     J. Protein Chem. 9:221-227(1990).
```

```
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; C37196; C37196.
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
FT
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
                   1
                          1
     SEQUENCE
                11 AA; 1199 MW; 20B25813C7741777 CRC64;
SQ
  Query Match
                          45.2%; Score 19; DB 1; Length 11;
  Best Local Similarity 75.0%; Pred. No. 8.3e+02;
  Matches
             3; Conservative
                               0; Mismatches
                                                 1; Indels
                                                                 0; Gaps
                                                                              0;
            4 PPLP 7
Qу
              Db
            4 PPRP 7
RESULT 12
BPP4 BOTIN
     BPP4 BOTIN
                    STANDARD;
                                   PRT;
ID
                                           11 AA.
     P30424;
AC
DT
     01-APR-1993 (Rel. 25, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DE
     Bradykinin-potentiating peptide S4,1,2 (Angiotensin-converting
DE
     enzyme inhibitor).
     Bothrops insularis (Island jararaca) (Queimada jararaca).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Bothrops.
OX
     NCBI TaxID=8723;
RN
     [1]
     SEQUENCE.
RΡ
RC
     TISSUE=Venom;
RX
     MEDLINE=90351557; PubMed=2386615;
RA
     Cintra A.C.O., Vieira C.A., Giglio J.R.;
RT
     "Primary structure and biological activity of bradykinin potentiating
RT
     peptides from Bothrops insularis snake venom.";
ŔĹ
     J. Protein Chem. 9:221-227(1990).
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; D37196; D37196.
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                   1
                          1
     SEQUENCE
                11 AA; 1143 MW; 20BBBF13C7741777 CRC64;
SQ
                          45.2%;
                                  Score 19; DB 1; Length 11;
  Query Match
  Best Local Similarity
                          75.0%; Pred. No. 8.3e+02;
  Matches
             3; Conservative
                                 0; Mismatches
                                                                              0;
                                                  l; Indels
                                                                 0; Gaps
            4 PPLP 7
Qу
              \mathbf{H}
            4 PPRP 7
Db
```

```
RESULT 13
BPPB AGKHA
     BPPB AGKHA
                    STANDARD;
                                    PRT:
                                            11 AA.
     P010\overline{2}1;
AC
DΤ
     21-JUL-1986 (Rel. 01, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
     Bradykinin-potentiating peptide B (Angiotensin-converting
DE
DE
     enzyme inhibitor).
     Agkistrodon halys blomhoffii (Mamushi) (Gloydius blomhoffii).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Gloydius.
     NCBI TaxID=242054;
OX
RN
     [1]
RP
     SEOUENCE.
RC
     TISSUE=Venom;
     Kato H., Suzuki T.;
RA
     "Amino acid sequence of bradykinin-potentiating peptide isolated from
RT
     the venom of Agkistrodon halys blomhoffii.";
RT
     Proc. Jpn. Acad., B, Phys. Biol. Sci. 46:176-181(1970).
RL
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
     PIR; A01254; XASNBA.
DR
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
                                   PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                          1
                   1
                11 AA; 1199 MW; 295CBF0627741777 CRC64;
     SEQUENCE
SO
                           45.2%;
                                   Score 19; DB 1; Length 11;
  Query Match
  Best Local Similarity
                           75.0%; Pred. No. 8.3e+02;
                                                                   0; Gaps
                                  0; Mismatches
                                                                               0;
  Matches
             3; Conservative
                                                    1; Indels
            4 PPLP 7
Qу
              111
            4 PPRP 7
Db
RESULT 14
MORN HUMAN
ID
     MORN HUMAN
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P01163;
     21-JUL-1986 (Rel. 01, Created)
DT
     21-JUL-1986 (Rel. 01, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DΤ
DE
     Morphogenetic neuropeptide (Head activator) (HA).
     Homo sapiens (Human),
OS
OS
     Rattus norvegicus (Rat),
     Bos taurus (Bovine),
OS
     Anthopleura elegantissima (Sea anemone), and
OS
     Hydra attenuata (Hydra) (Hydra vulgaris).
os
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC
     NCBI TaxID=9606, 10116, 9913, 6110, 6087;
OX
RN
     [1]
```

```
RP
    SEOUENCE.
RC
    SPECIES=Human, Rat, and Bovine;
    MEDLINE=82035850; PubMed=7290191;
RX
    Bodenmuller H., Schaller H.C.;
RA
RT
     "Conserved amino acid sequence of a neuropeptide, the head activator,
RT
    from coelenterates to humans.";
RL
    Nature 293:579-580(1981).
RN
    [2]
RP
    SEQUENCE.
RC
    SPECIES=A.elegantissima, and H.attenuata;
    Schaller H.C., Bodenmuller H.;
RA
     "Isolation and amino acid sequence of a morphogenetic peptide from
RT
RT
    hydra.";
    Proc. Natl. Acad. Sci. U.S.A. 78:7000-7004(1981).
RL
RN
    [3]
RP
    SYNTHESIS.
RX
    MEDLINE=82050803; PubMed=7297679;
RA
    Birr C., Zachmann B., Bodenmuller H., Schaller H.C.;
    "Synthesis of a new neuropeptide, the head activator from hydra.";
RT
    FEBS Lett. 131:317-321(1981).
RL
RN
    [4]
    FUNCTION.
RP
RX
    MEDLINE=90059923; PubMed=2583101;
RA
    Schaller H.C., Druffel-Augustin S., Dubel S.;
    "Head activator acts as an autocrine growth factor for NH15-CA2 cells
RT
RT
    in the G2/mitosis transition.";
    EMBO J. 8:3311-3318(1989).
RL
CC
    -!- FUNCTION: HA acts as an autocrine growth factor for neural cells
         in the G2/mitosis transition.
CC
    -!- CAUTION: This peptide was first isolated from nerve cells of hydra
CC
CC
         and was called head activator by the authors, because it induced
CC
        head-specific growth and differentiation in this animal. It has
CC
        been found in mammalian intestine and hypothalamus.
    PIR; A01427; YHRT.
DR
    PIR; A93900; YHXAE.
DR
DR
    PIR; B01427; YHHU.
DR
    PIR; B93900; YHJFHY.
DR
    PIR; C01427; YHBO.
DR
    GK; P01163; -.
KW
    Growth factor; Cell cycle; Mitosis; Pyrrolidone carboxylic acid.
FT
    MOD RES
                  1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
SQ
    SEQUENCE
               11 AA; 1142 MW; 37927417C325B878 CRC64;
                          45.2%; Score 19; DB 1; Length 11;
 Query Match
  Best Local Similarity
                          100.0%; Pred. No. 8.3e+02;
            3; Conservative 0; Mismatches
 Matches
                                                0; Indels
                                                                              0;
                                                                 0; Gaps
            2 QPP 4
Qу
              +111
Db
            1 QPP 3
RESULT 15
FIF1 SARBU
   FIF1 SARBU
ID
                    STANDARD:
                                   PRT:
                                           12 AA.
AC
    P83349;
DT
    28-FEB-2003 (Rel. 41, Created)
```

```
DT
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DE
     Neb-FIRFamide 1.
OS
     Sarcophaga bullata (Grey flesh fly) (Neobellieria bullata).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
     Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC
     Sarcophagidae; Sarcophaga.
OX
    NCBI TaxID=7385;
RN
     [1]
RP
     SEQUENCE, AMIDATION, AND FUNCTION.
RC
     TISSUE=CNS;
    MEDLINE=22342733; PubMed=12438685;
RX
    Meeusen T., Mertens I., Clynen E., Baggerman G., Nichols R.,
RA
     Nachman R.J., Huybrechts R., De Loof A., Schoofs L.;
RA
RT
     "Identification in Drosophila melanogaster of the invertebrate G
RT
    protein-coupled FMRFamide receptor.";
RL
     Proc. Natl. Acad. Sci. U.S.A. 99:15363-15368(2002).
CC
    -!- FUNCTION: Has modulatory actions at skeletal neuromuscular
CC
         junctions.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC
         family.
KW
     Neuropeptide; Amidation.
FT
     MOD RES
                  12
                         12
                                  AMIDATION.
     SEQUENCE
                12 AA; 1389 MW; 2DC45519C14AB5A7 CRC64;
SQ
  Ouery Match
                          45.2%; Score 19; DB 1; Length 12;
  Best Local Similarity 75.0%; Pred. No. 9.1e+02;
  Matches
             3; Conservative
                               0; Mismatches 1; Indels
                                                                              0;
                                                                  0; Gaps
            4 PPLP 7
QУ
              \Box
            2 PPQP 5
Db
RESULT 16
PSBL SYNVU
     PSBL SYNVU
                    STANDARD;
                                   PRT;
ID
                                           17 AA.
     P12241;
AC
DΤ
     01-OCT-1989 (Rel. 12, Created)
     01-OCT-1989 (Rel. 12, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
\mathsf{D}\mathbf{T}
DE
     Photosystem II reaction center L protein (PSII 5 kDa protein)
DΕ
     (Fragment).
     PSBL.
GN
     Synechococcus vulcanus (Thermosynechococcus vulcanus).
OS
OC
     Bacteria; Cyanobacteria; Chroococcales; Thermosynechococcus.
OX
     NCBI TaxID=32053;
RN
     [1]
     SEQUENCE.
RP
     Ikeuchi M., Koike H., Inoue Y.;
RΑ
RT
     "Identification of psbI and psbL gene products in cyanobacterial
RT
     photosystem II reaction center preparation.";
RL
     FEBS Lett. 251:155-160(1989).
CC
     -!- FUNCTION: Not known, it is however required for PSII activity.
     -!- SUBCELLULAR LOCATION: Cellular thylakoid membrane.
CC
CC
     -!- SIMILARITY: Belongs to the psbL family.
```

```
PIR; S05033; S05033.
DR
DR
    HAMAP; MF 01317; -; 1.
    InterPro; IPR003372; PSII PsbL.
DR
    Pfam; PF02419; PsbL; 1.
KW
    Photosynthesis; Thylakoid; Photosystem II; Reaction center.
FT
    NON TER 17 17
SO
    SEQUENCE 17 AA; 2018 MW; A86FD372B70B9847 CRC64;
 Ouery Match
                       45.2%; Score 19; DB 1; Length 17;
 Best Local Similarity 60.0%; Pred. No. 1.3e+03;
          3; Conservative 1; Mismatches 1; Indels 0; Gaps
 Matches
                                                                     0;
          1 MQPPP 5
Qу
            1:1
          1 MEPNP 5
Db
RESULT 17
YBFR AZOVI
    YBFR AZOVI
                 STANDARD; PRT;
                                      9 AA.
AC
    P25825;
DT
    01-MAY-1992 (Rel. 22, Created)
    01-MAY-1992 (Rel. 22, Last sequence update)
DT
    16-OCT-2001 (Rel. 40, Last annotation update)
    Hypothetical protein in bfr 3'region (Fragment).
DE
OS
    Azotobacter vinelandii.
OC
    Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
    Pseudomonadaceae; Azotobacter.
OC
OX
    NCBI TaxID=354;
RN
    [1]
    SEQUENCE FROM N.A.
RP
    MEDLINE=92196129; PubMed=1549605;
RX
    Grossman M.J., Hinton S.M., Minak-Bernero V., Slaughter C.,
RA
    Stiefel E.I.;
RA
RT
    "Unification of the ferritin family of proteins.";
    Proc. Natl. Acad. Sci. U.S.A. 89:2419-2423(1992).
RL
    _______
CC
CC
    This SWISS-PROT entry is copyright. It is produced through a collaboration
CC
    between the Swiss Institute of Bioinformatics and the EMBL outstation -
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    the European Bioinformatics Institute. There are no restrictions on its
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    or send an email to license@isb-sib.ch).
CC
    ______
CC
    EMBL; M83692; AAA22122.1; -.
DR
DR
    PIR; B41983; B41983.
KW
    Hypothetical protein.
    NON TER
FT
              9
    SEQUENCE 9 AA; 947 MW; DF98B5A1B417776D CRC64;
SQ
 Query Match
                       42.9%; Score 18; DB 1; Length 9;
 Best Local Similarity 75.0%; Pred. No. 1.4e+05;
 Matches 3; Conservative 0; Mismatches 1; Indels 0; Gaps
Qу
          1 MQPP 4
```

 \perp

```
RESULT 18
TIN4 HOPTI
     TIN4 HOPTI
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P82654;
DT
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Tigerinin-4.
os
     Hoplobatrachus tigerinus (Indian bull frog) (Rana tigerina).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae;
OC
    Hoplobatrachus.
OX
    NCBI TaxID=103373;
RN
    [1]
RP
     SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND DISULFIDE BONDS.
RC
    TISSUE=Skin secretion;
RX
     PubMed=11031261;
    Purna Sai K., Jaganadham M.V., Vairamani M., Raju N.P.,
RA
RA
     Devi A.S., Nagaraj R., Sitaram N.;
RT
     "Tigerinins: novel antimicrobial peptides from the Indian frog Rana
RT
     tigerina.";
RL
     J. Biol. Chem. 276:2701-2707(2001).
     -!- FUNCTION: Antibacterial activity against B.subtilis, E.coli,
CC
CC
         S.aureus, M.luteus, P.putida and S.cerevisiae.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
     -!- TISSUE SPECIFICITY: Skin.
CC
CC
    -!- MASS SPECTROMETRY: MW=1247; METHOD=MALDI.
KW
    Amphibian defense peptide; Antibiotic.
FT
     DISULFID
                   3
                        11
              11 AA; 1248 MW; 117D8EFD37605DCB CRC64;
SO
     SEQUENCE
  Query Match
                          42.9%; Score 18; DB 1; Length 11;
  Best Local Similarity
                          100.0%; Pred. No. 1.2e+03;
                               0; Mismatches
  Matches
             3; Conservative
                                                0; Indels 0; Gaps
                                                                              0;
Qу
            5 PLP 7
              111
Db
            7 PLP 9
RESULT 19
TKN1 UPERU
     TKN1 UPERU
                    STANDARD;
                                   PRT;
ID
                                           11 AA.
AC
     P08612;
     01-AUG-1988 (Rel. 08, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Uperolein.
OS
     Uperoleia rugosa (Wrinkled toadlet).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Uperoleia.
OX
     NCBI TaxID=8368;
RN
     [1]
```

```
RP
     SEQUENCE.
RC
    TISSUE=Skin secretion;
RX
    MEDLINE=75131227; PubMed=1120493;
RA
    Anastasi A., Erspamer V., Endean R.;
RT
     "Structure of uperolein, a physalaemin-like endecapeptide occurring
RT
     in the skin of Uperoleia rugosa and Uperoleia marmorata.";
RL
     Experientia 31:394-395(1975).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
    -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
    -!- SIMILARITY: Belongs to the tachykinin family.
     InterPro; IPR002040; Tachy Neurokinin.
DR
DR
     InterPro; IPR008215; Tachykinin.
DR
    Pfam; PF02202; Tachykinin; 1.
DR
    SMART; SM00203; TK; 1.
    PROSITE; PS00267; TACHYKININ; 1.
DR
KW
    Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
    Pyrrolidone carboxylic acid.
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
    MOD RES
                   1
                          1
FT
    MOD RES
                  11
                         11
                                  AMIDATION.
SQ
     SEQUENCE
                11 AA; 1252 MW; 32867C3E59CDD457 CRC64;
                          42.9%; Score 18; DB 1; Length 11;
  Query Match
                          75.0%; Pred. No. 1.2e+03;
  Best Local Similarity
                                                  1; Indels
             3; Conservative
                                 0; Mismatches
                                                                  0; Gaps
                                                                              0;
            2 QPPP 5
Qу
              \Box \Box \Box
            1 OPDP 4
RESULT 20
TIN2 HOPTI
    TIN2 HOPTI
                    STANDARD;
                                   PRT;
                                            12 AA.
ID
AC
     P82652;
DT
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Tigerinin-2.
OS
     Hoplobatrachus tigerinus (Indian bull frog) (Rana tigerina).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae;
OC
OC
     Hoplobatrachus.
OX
     NCBI TaxID=103373;
RN
RP
     SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND DISULFIDE BONDS.
RC
     TISSUE=Skin secretion;
     PubMed=11031261;
RX
RA
     Purna Sai K., Jaganadham M.V., Vairamani M., Raju N.P.,
     Devi A.S., Nagaraj R., Sitaram N.;
RA
RT
     "Tigerinins: novel antimicrobial peptides from the Indian frog Rana
RT
     tigerina.";
     J. Biol. Chem. 276:2701-2707(2001).
RL
CC
     -!- FUNCTION: Antibacterial activity against B.subtilis, E.coli,
```

```
CC
         S.aureus, M.luteus, P.putida and S.cerevisiae.
CC
    -!- SUBCELLULAR LOCATION: Secreted.
CC
    -!- TISSUE SPECIFICITY: Skin.
CC
     -!- MASS SPECTROMETRY: MW=1368; METHOD=MALDI.
    Amphibian defense peptide; Antibiotic; Amidation.
KW
FT
     DISULFID
                  3
                         11
FT
    MOD RES
                  12
                         12
                                  AMIDATION.
     SEQUENCE
                12 AA; 1369 MW; C2627D8EFD37605D CRC64;
SO
                          42.9%; Score 18; DB 1; Length 12;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 1.3e+03;
             3; Conservative 0; Mismatches 0; Indels
                                                                 0; Gaps
                                                                             0;
  Matches
            5 PLP 7
Qу
             -111
            7 PLP 9
Db
RESULT 21
TIN3 HOPTI
                                   PRT;
                                           12 AA.
     TIN3 HOPTI
                    STANDARD;
ID
     P82653;
AC
DT
     16-OCT-2001 (Rel. 40, Created)
DT
     16-OCT-2001 (Rel. 40, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Tigerinin-3.
OS
     Hoplobatrachus tigerinus (Indian bull frog) (Rana tigerina).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae;
OC
OC
     Hoplobatrachus.
     NCBI TaxID=103373;
OX
RN
     [1]
     SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND DISULFIDE BONDS.
RP
RC
     TISSUE=Skin secretion;
RX
     PubMed=11031261;
RA
     Purna Sai K., Jaganadham M.V., Vairamani M., Raju N.P.,
     Devi A.S., Nagaraj R., Sitaram N.;
RA
     "Tigerinins: novel antimicrobial peptides from the Indian frog Rana
RT
RT
     tigerina.";
     J. Biol. Chem. 276:2701-2707(2001).
RL
     -!- FUNCTION: Antibacterial activity against B.subtilis, E.coli,
CC
CC
         S.aureus, M.luteus, P.putida and S.cerevisiae.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- MASS SPECTROMETRY: MW=1409; METHOD=MALDI.
CC
     Amphibian defense peptide; Antibiotic; Amidation.
KW
FT
     DISULFID
                   3
                         11
     MOD RES
                  12
                         12
FT
                                  AMIDATION.
                12 AA; 1411 MW; C0717D8EFD37605D CRC64;
     SEQUENCE
SO
                          42.9%; Score 18; DB 1; Length 12;
  Query Match
                          100.0%; Pred. No. 1.3e+03;
  Best Local Similarity
                                                                              0;
             3; Conservative 0; Mismatches 0; Indels
                                                                 0;
                                                                     Gaps
            5 PLP 7
Qу
              -111
Db
            7 PLP 9
```

```
RESULT 22
PEDI HYDAT
     PEDI HYDAT
                                   PRT;
                                           13 AA.
ID
                    STANDARD;
AC
     P80578;
DT
     01-OCT-1996 (Rel. 34, Created)
DT
     01-OCT-1996 (Rel. 34, Last sequence update)
     01-OCT-1996 (Rel. 34, Last annotation update)
DT
DE
    Hydra attenuata (Hydra) (Hydra vulgaris).
OS
     Eukaryota; Metazoa; Cnidaria; Hydrozoa; Hydroida; Anthomedusae;
OC
OC
    Hydridae; Hydra.
OX
    NCBI TaxID=6087;
RN
    [1]
RP
    SEOUENCE.
RX
    MEDLINE=96232307; PubMed=8674432;
    Hoffmeister S.A.H.;
RA
     "Isolation and characterization of two new morphogenetically active
RT
RT
    peptides from Hydra vulgaris.";
     Development 122:1941-1948(1996).
RL
    -!- FUNCTION: Morphogenetically active peptide. Active in foot
CC
CC
         development.
KW
    Morphogen.
     SEQUENCE
              13 AA; 1512 MW; 6F5266E3F37632CB CRC64;
SQ
                          42.9%; Score 18; DB 1; Length 13;
  Query Match
                          42.9%; Pred. No. 1.4e+03;
  Best Local Similarity
                                                 2; Indels
  Matches
             3; Conservative
                                 2; Mismatches
                                                                  0; Gaps
                                                                              0;
            1 MOPPPLP 7
Qу
              ::| ||
            3 LRPEVLP 9
Db
RESULT 23
ECDC LYMDI
                                           14 AA.
ID
     ECDC LYMDI
                    STANDARD;
                                   PRT;
AC
     P80940;
DT
     15-JUL-1998 (Rel. 36, Created)
DT
     15-JUL-1998 (Rel. 36, Last sequence update)
     15-JUL-1998 (Rel. 36, Last annotation update)
DT
DE
     Testis ecdysiotropin peptide C (TE).
     Lymantria dispar (Gypsy moth).
OS
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
     Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Noctuoidea;
OC
OC
     Lymantriidae; Lymantria.
OX
     NCBI TaxID=13123;
RN
     [1]
     SEQUENCE.
RP
     TISSUE=Brain;
RC
     MEDLINE=97387807; PubMed=9243792;
RX
RA
     Loeb M.J., Wagner R.M., Woods C.W., Gelman D.G., Harrison D.,
RA
     Bell R.A.;
     "Naturally occurring analogs of Lymantria testis ecdysiotropin, a
RT
     gonadotropin isolated from brains of Lymantria dispar pupae.";
RT
     Arch. Insect Biochem. Physiol. 36:37-50(1997).
RL
```

```
CC
    -!- FUNCTION: Stimulates synthesis of ecdysteroid in the testes of
CC
         larvae and pupae.
              14 AA; 1553 MW; 17F479531A685CBB CRC64;
SQ
     SEQUENCE
                          42.9%; Score 18; DB 1; Length 14;
  Query Match
                         100.0%; Pred. No. 1.5e+03;
  Best Local Similarity
 Matches
            3; Conservative 0; Mismatches
                                                 0; Indels
                                                                0; Gaps
                                                                             0;
           5 PLP 7
Qy
             111
           9 PLP 11
Db
RESULT 24
AF1L MALPA
    AF1L MALPA
                    STANDARD;
                                   PRT;
                                          15 AA.
AC
     P83141;
DT
     28-FEB-2003 (Rel. 41, Created)
     28-FEB-2003 (Rel. 41, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
    Antifungal protein 1 large subunit (CW-1) (Fragment).
DE
    Malva parviflora (Little mallow) (Cheeseweed).
os
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC
     eurosids II; Malvales; Malvaceae; Malvoideae; Malva.
OX
    NCBI TaxID=145753;
RN
     [1]
RP
     SEQUENCE, AND FUNCTION.
RC
    TISSUE=Seed;
    MEDLINE=20568734; PubMed=11118343;
RX
RA
    Wang X., Bunkers G.J.;
     "Potent heterologous antifungal proteins from cheeseweed (Malva
RT
    parviflora).";
RT
     Biochem. Biophys. Res. Commun. 279:669-673(2000).
RL
CC
     -!- FUNCTION: Possesses antifungal activity against P.infestans but
CC
        not F.graminearum.
     -!- SUBUNIT: Heterodimer of a large and a small subunit.
CC
CC
    -!- MISCELLANEOUS: Antimicrobial activity is not affected by salt
CC
         concentration.
DR
     GO; GO:0003799; F:antifungal peptide activity; IDA.
     Fungicide; Antibiotic.
KW
     NON TER
FT
                  15
     SEQUENCE
                15 AA; 1783 MW; 2CB3079F53CC70F9 CRC64;
SO
  Query Match
                          42.9%; Score 18; DB 1; Length 15;
  Best Local Similarity
                         100.0%; Pred. No. 1.6e+03;
            3; Conservative
                              0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
                                                                             0;
            4 PPL 6
Qy
              111
            8 PPL 10
Db
RESULT 25
MK1 PALPR
     MK1 PALPR
                              PRT;
ID
                    STANDARD;
                                           15 AA.
AC
     P80408;
```

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DT
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DE
    Metalnikowin I.
OS
     Palomena prasina (Green shield bug).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
    Neoptera; Paraneoptera; Hemiptera; Euhemiptera; Heteroptera;
OC
     Panheteroptera; Pentatomomorpha; Pentatomoidea; Pentatomidae;
OC
     Palomena.
    NCBI TaxID=55431;
OX
RN
     [1]
RP
     SEQUENCE.
RC
    TISSUE=Hemolymph;
     Chernysh S., Cociancich S., Briand J.-P., Hetru C., Bulet P.;
RA
     "The inducible antibacterial peptides of the hemipteran insect
RT
RT
     Palomena prasina: identification of a unique family of proline-rich
RT
    peptides and of a novel insect defensin.";
RL
     J. Insect Physiol. 42:81-89(1996).
    -!- FUNCTION: Antibacterial peptide active against Gram-negative
CC
CC
         bacteria.
CC
    -!- INDUCTION: By bacterial infection.
KW
     Antibiotic; Insect immunity.
              15 AA; 1838 MW; 21407E663CE46299 CRC64;
SQ
     SEQUENCE
                          42.9%; Score 18; DB 1; Length 15;
  Query Match
  Best Local Similarity 50.0%; Pred. No. 1.6e+03;
  Matches
             3; Conservative
                               1; Mismatches 2; Indels
                                                                 0; Gaps
                                                                              0;
            2 OPPPLP 7
Qy
             : 1 1 1
Db
            7 RPRPRP 12
RESULT 26
MK2A PALPR
    MK2A PALPR
ΙD
                    STANDARD;
                                   PRT:
                                           15 AA.
     P80409;
AC
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DE
    Metalnikowin IIA.
OS
     Palomena prasina (Green shield bug).
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
     Neoptera; Paraneoptera; Hemiptera; Euhemiptera; Heteroptera;
OC
     Panheteroptera; Pentatomomorpha; Pentatomoidea; Pentatomidae;
OC
OC
     Palomena.
OX
     NCBI TaxID=55431;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Hemolymph;
     Chernysh S., Cociancich S., Briand J.-P., Hetru C., Bulet P.;
RA
     "The inducible antibacterial peptides of the hemipteran insect
RT
RT
     Palomena prasina: identification of a unique family of proline-rich
RT
     peptides and of a novel insect defensin.";
RL
     J. Insect Physiol. 42:81-89(1996).
CC
     -!- FUNCTION: Antibacterial peptide active against Gram-negative
CC
         bacteria.
```

```
CC
    -!- INDUCTION: By bacterial infection.
KW
    Antibiotic; Insect immunity.
SQ
     SEQUENCE 15 AA; 1893 MW; 23835D063B946299 CRC64;
                          42.9%; Score 18; DB 1; Length 15;
  Query Match
                          50.0%; Pred. No. 1.6e+03;
  Best Local Similarity
                                                              0; Gaps
 Matches
            3; Conservative
                                1; Mismatches
                                                  2; Indels
                                                                             0;
           2 QPPPLP 7
Qy
              : 1 | 1
Db
            7 RPRPWP 12
RESULT 27
FOR1 MYRGU
     FOR1 MYRGU
ΙD
                    STANDARD;
                                   PRT;
                                           16 AA.
AC
     P81438;
     15-DEC-1998 (Rel. 37, Created)
DT
DT
     15-DEC-1998 (Rel. 37, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
    Formaecin 1.
OS
    Myrmecia gulosa (Red bulldog ant).
OC
    Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
    Neoptera; Endopterygota; Hymenoptera; Apocrita; Aculeata; Vespoidea;
OC
     Formicidae; Myrmeciinae; Myrmeciini; Myrmecia.
OX
    NCBI TaxID=36170;
RN
     [1]
RP
     SEQUENCE, AND CARBOHYDRATE-LINKAGE SITE THR-11.
RC
    TISSUE=Hemolymph;
RX
    MEDLINE=98165787; PubMed=9497332;
    Mackintosh J.A., Veal D.A., Beattie A.J., Gooley A.A.;
RA
RT
     "Isolation from an ant Myrmecia gulosa of two inducible
    O-glycosylated proline-rich antibacterial peptides.";
RT
     J. Biol. Chem. 273:6139-6143(1998).
RL
CC
     -!- FUNCTION: Antibacterial peptide. Has activity against E.coli
CC
        but none against other Gram-negative bacteria and Gram-positive
CC
         bacteria.
    -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- INDUCTION: By bacterial infection.
CC
     -!- PTM: O-LINKED GLYCAN CONSISTS OF A GAL-GALNAC DISACCHARIDE, O-
CC
         GLYCOSYLATION IS ESSENTIAL FOR FULL BIOLOGICAL ACTIVITY.
CC
     -!- SIMILARITY: TO DROSOPHILA DROSOCIN.
KW
     Antibiotic; Glycoprotein; Insect immunity; Hemolymph.
FT
     CARBOHYD
                  11
                                  O-LINKED (GALNAC. . .).
                         11
SO
     SEQUENCE
                16 AA; 1794 MW; 80CEA3AABBC2E0AE CRC64;
  Query Match
                          42.9%; Score 18; DB 1; Length 16;
  Best Local Similarity
                          50.0%; Pred. No. 1.7e+03;
                                1; Mismatches
                                                  2; Indels
                                                                 0; Gaps
  Matches
            3; Conservative
                                                                             0;
            2 QPPPLP 7
Qу
              :1 1 1
Db
            9 KPTPHP 14
```

RESULT 28 MK2B PALPR

```
ID
    MK2B PALPR
                    STANDARD;
                                   PRT:
                                           16 AA.
AC
    P80410;
DT
    01-NOV-1995 (Rel. 32, Created)
DT
    01-NOV-1995 (Rel. 32, Last sequence update)
    28-FEB-2003 (Rel. 41, Last annotation update)
DT
    Metalnikowin IIB.
DE
    Palomena prasina (Green shield bug).
os
    Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
OC
    Neoptera; Paraneoptera; Hemiptera; Euhemiptera; Heteroptera;
OC
    Panheteroptera; Pentatomomorpha; Pentatomoidea; Pentatomidae;
OC
     Palomena.
    NCBI_TaxID=55431;
OX
RN
    [1]
RP
    SEQUENCE.
RC
    TISSUE=Hemolymph;
    Chernysh S., Cociancich S., Briand J.-P., Hetru C., Bulet P.;
RA
     "The inducible antibacterial peptides of the hemipteran insect
RT
     Palomena prasina: identification of a unique family of proline-rich
RT
RT
    peptides and of a novel insect defensin.";
    J. Insect Physiol. 42:81-89(1996).
RL
    -!- FUNCTION: Antibacterial peptide active against Gram-negative
CC
CC
        bacteria.
CC
    -!- INDUCTION: By bacterial infection.
KW
    Antibiotic; Insect immunity.
              16 AA; 2040 MW; AF21407D063B9462 CRC64;
SQ
     SEQUENCE
                          42.9%; Score 18; DB 1; Length 16;
  Query Match
                          50.0%; Pred. No. 1.7e+03;
  Best Local Similarity
                                                                              0;
 Matches
             3; Conservative
                                 1; Mismatches
                                                  2; Indels
                                                                  0; Gaps
            2 OPPPLP 7
Qу
              :1 1 1
            7 RPRPWP 12
Db
RESULT 29
MK3 PALPR
    MK3 PALPR
                    STANDARD;
                                   PRT;
                                           16 AA.
ΙD
AC
     P80411;
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DE
    Metalnikowin III.
OS
     Palomena prasina (Green shield bug).
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC
OC
     Neoptera; Paraneoptera; Hemiptera; Euhemiptera; Heteroptera;
OC
     Panheteroptera; Pentatomomorpha; Pentatomoidea; Pentatomidae;
OC
     Palomena.
OX
     NCBI TaxID=55431;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Hemolymph;
RA
     Chernysh S., Cociancich S., Briand J.-P., Hetru C., Bulet P.;
     "The inducible antibacterial peptides of the hemipteran insect
RT
     Palomena prasina: identification of a unique family of proline-rich
RT
RT
     peptides and of a novel insect defensin.";
     J. Insect Physiol. 42:81-89(1996).
RL
```

```
-!- FUNCTION: Antibacterial peptide active against Gram-negative
CC
CC
         bacteria.
CC
     -!- INDUCTION: By bacterial infection.
KW
     Antibiotic; Insect immunity.
     SEQUENCE 16 AA; 2024 MW; A9E3835D063B9462 CRC64;
SQ
  Query Match
                          42.9%; Score 18; DB 1; Length 16;
  Best Local Similarity
                          50.0%; Pred. No. 1.7e+03;
  Matches
            3; Conservative
                                1; Mismatches
                                                 2; Indels
                                                                     Gaps
                                                                              0;
            2 QPPPLP 7
Qу
              : 1 1 1
Db
            7 RPRPWP 12
RESULT 30
BPP8 BOTIN
                    STANDARD;
     BPP8 BOTIN
                                   PRT;
                                           10 AA.
TD
     P30426;
AC
DT
     01-APR-1993 (Rel. 25, Created)
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DT
DE
     Bradykinin-potentiating peptide S5,1 (Angiotensin-converting
DE
     enzyme inhibitor).
os
     Bothrops insularis (Island jararaca) (Queimada jararaca).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
OC
     Viperidae; Crotalinae; Bothrops.
OX
     NCBI TaxID=8723;
RN
    [1]
     SEQUENCE.
RP
     TISSUE=Venom;
RC
    MEDLINE=90351557; PubMed=2386615;
RX
     Cintra A.C.O., Vieira C.A., Giglio J.R.;
RA
RT
     "Primary structure and biological activity of bradykinin potentiating
     peptides from Bothrops insularis snake venom.";
RT
RL
     J. Protein Chem. 9:221-227(1990).
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
     PIR; H37196; H37196.
DR
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
FT
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
                   1
                          1
     SEQUENCE
                10 AA; 1173 MW; 2FF835545761F6D8 CRC64;
SQ
  Query Match
                          40.5%; Score 17; DB 1; Length 10;
  Best Local Similarity
                          50.0%; Pred. No. 1.5e+03;
                                1; Mismatches
                                                  2; Indels
                                                                              0;
  Matches
             3; Conservative
                                                                 0; Gaps
            2 QPPPLP 7
Qу
              | | : |
            4 QHPNIP 9
Db
```

RESULT 31 LADD ONCMY

```
ID
     LADD ONCMY
                                   PRT;
                                            11 AA.
                    STANDARD:
AC
     P81018;
DT
     01-NOV-1997 (Rel. 35, Created)
     01-NOV-1997 (Rel. 35, Last sequence update)
DT
     15-DEC-1998 (Rel. 37, Last annotation update)
DT
DE
     Ladderlectin (Fragment).
os
     Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Actinopterygii; Neopterygii; Teleostei; Euteleostei;
OC
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OX
     NCBI TaxID=8022;
RN
     [1]
     SEQUENCE.
RP
RC
     TISSUE=Blood:
     MEDLINE=97293418; PubMed=9149391;
RX
RA
     Jensen L.E., Thiel S., Petersen T.E., Jensenuis J.C.;
RT
     "A rainbow trout lectin with multimeric structure.";
RL
     Comp. Biochem. Physiol. 116B:385-390(1997).
CC
     -!- FUNCTION: Lectin that binds sepharose.
     -!- COFACTOR: Calcium is essential for sepharose binding.
CC
CC
     -!- SUBUNIT: Multimeric.
KW
     Lectin; Calcium.
FT
     NON TER
                  11
                         11
SQ
     SEQUENCE
                11 AA; 1163 MW;
                                 0B26227FF6D45404 CRC64;
                          40.5%; Score 17; DB 1; Length 11;
  Query Match
                          75.0%; Pred. No. 1.6e+03;
  Best Local Similarity
  Matches
             3; Conservative
                                 0; Mismatches
                                                    1; Indels
                                                                  0; Gaps
                                                                               0;
            2 QPPP 5
Qу
              \perp 11
            7 QXPP 10
Db
RESULT 32
TKN1 PSEGU
     TKN1 PSEGU
ID
                    STANDARD:
                                   PRT:
                                            11 AA.
     P42986;
AC
DT
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Kassinin-like peptide K-I (PG-KI).
os
     Pseudophryne guentheri (Guenther's toadlet).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN,
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=90287814; PubMed=2356157;
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RT
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RL
     Peptides 11:299-304(1990).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
```

```
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
    -!- SUBCELLULAR LOCATION: Secreted.
    -!- TISSUE SPECIFICITY: Skin.
CC
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; B60409; B60409.
DR
    InterPro; IPR002040; Tachy Neurokinin.
DR
    InterPro; IPR008215; Tachykinin.
DR
    Pfam; PF02202; Tachykinin; 1.
DR
    SMART; SM00203; TK; 1.
DR
    PROSITE; PS00267; TACHYKININ; 1.
KW
    Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
FT
    MOD RES
                   1
                                  PYRROLIDONE CARBOXYLIC ACID.
                         1
FT
    MOD RES
                  11
                         11
                                  AMIDATION.
SO
     SEQUENCE
                11 AA; 1269 MW; 3DBA7C37C9CB1AB7 CRC64;
  Query Match
                          40.5%; Score 17; DB 1; Length 11;
  Best Local Similarity
                          75.0%; Pred. No. 1.6e+03;
                                                                  0; Gaps
 Matches
             3; Conservative
                                 0; Mismatches
                                                 1; Indels
                                                                              0;
            2 QPPP 5
Qу
              11 1
Db
            1 QPHP 4
RESULT 33
TKN2 PSEGU
     TKN2 PSEGU
ID
                                   PRT;
                                           11 AA.
                    STANDARD;
     P42987;
AC
DT
     01-NOV-1995 (Rel. 32, Created)
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Kassinin-like peptide K-II (PG-KII).
DE
OS
     Pseudophryne guentheri (Guenther's toadlet).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
    Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
    Myobatrachinae; Pseudophryne.
    NCBI TaxID=30349;
OX
RN
    [1]
RΡ
    SEQUENCE.
RC
    TISSUE=Skin secretion;
RX
    MEDLINE=90287814; PubMed=2356157;
RA
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
RT
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
    the Australian frog Pseudophryne guntheri.";
RL
     Peptides 11:299-304(1990).
CC
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
    -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
    -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; C60409; C60409.
```

```
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
    SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
    Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
FΤ
    MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
                   1
                          1
FT
    MOD RES
                  11
                         11
                                  AMIDATION.
SO
     SEQUENCE
                11 AA; 1246 MW; 3A247C37C9CB1AB7 CRC64;
                          40.5%; Score 17; DB 1; Length 11;
  Query Match
                          75.0%; Pred. No. 1.6e+03;
  Best Local Similarity
                                                                  0; Gaps
                                                                              0;
  Matches
             3; Conservative
                                 0; Mismatches 1; Indels
            2 OPPP 5
Qу
             \Pi
            1 QPNP 4
Db
RESULT 34
TKN3 PSEGU
     TKN3 PSEGU
                    STANDARD;
                                   PRT;
                                           11 AA.
AC
     P42988;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Kassinin-like peptide K-III (PG-KIII).
DE
     Pseudophryne quentheri (Guenther's toadlet).
OS
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
     MEDLINE=90287814; PubMed=2356157;
RX
RA
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA
     Roberts J.D., Melchiorri P., Erspamer V.;
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RT
RL
     Peptides 11:299-304(1990).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; D60409; D60409.
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
DŔ
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
     PROSITE; PS00267; TACHYKININ; 1.
DR
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
KW
     Pyrrolidone carboxylic acid.
```

```
FT
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
                  1
                         1
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
               11 AA; 1268 MW; 3DBA7C37C9CB1457 CRC64;
SO
                          40.5%; Score 17; DB 1; Length 11;
  Query Match
                          75.0%; Pred. No. 1.6e+03;
  Best Local Similarity
  Matches
            3; Conservative
                                0; Mismatches
                                                 1; Indels
                                                                0; Gaps
                                                                             0;
           2 QPPP 5
Qу
             11 I
            1 OPHP 4
RESULT 35
TKN4 PSEGU
     TKN4 PSEGU
                                   PRT;
ID
                    STANDARD;
                                           11 AA.
     P42989;
AC
     01-NOV-1995 (Rel. 32, Created)
DΤ
     01-NOV-1995 (Rel. 32, Last sequence update)
DΤ
     10-OCT-2003 (Rel. 42, Last annotation update)
DE
     Substance P-like peptide I (PG-SPI).
OS
     Pseudophryne guentheri (Guenther's toadlet).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
OC
     Myobatrachinae; Pseudophryne.
OX
     NCBI TaxID=30349;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
     MEDLINE=90287814; PubMed=2356157;
RX
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
RA.
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
RT
     the Australian frog Pseudophryne guntheri.";
     Peptides 11:299-304(1990).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
        muscles.
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- SIMILARITY: Belongs to the tachykinin family.
DR
     PIR; E60409; E60409.
DR
     InterPro; IPR002040; Tachy_Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
     Pyrrolidone carboxylic acid.
KW
     MOD RES
FT
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
               11 AA; 1294 MW; 3A247C2CC9CB1AB7 CRC64;
SQ
  Query Match
                          40.5%; Score 17; DB 1; Length 11;
                         75.0%; Pred. No. 1.6e+03;
  Best Local Similarity
  Matches
           3; Conservative 0; Mismatches 1; Indels
                                                                 0; Gaps
                                                                             0;
```

```
2 QPPP 5
.Qy
              11 1
            1 OPNP 4
Db
RESULT 36
TKN5 PSEGU
ID
     TKN5 PSEGU
                    STANDARD;
                                   PRT;
                                            11 AA.
AC
     P42990;
DT
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Substance P-like peptide II (PG-SPII).
DE
os
     Pseudophryne guentheri (Guenther's toadlet).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Hyloidea; Myobatrachidae;
     Myobatrachinae; Pseudophryne.
OC
OX
     NCBI TaxID=30349;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Skin secretion;
RX
     MEDLINE=90287814; PubMed=2356157;
RA
     Simmaco M., Severini C., de Biase D., Barra D., Bossa F.,
     Roberts J.D., Melchiorri P., Erspamer V.;
RA
RT
     "Six novel tachykinin- and bombesin-related peptides from the skin of
RT
     the Australian frog Pseudophryne guntheri.";
RL
     Peptides 11:299-304(1990).
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; F60409; F60409.
DR
     InterPro; IPR002040; Tachy Neurokinin.
DR
     InterPro; IPR008215; Tachykinin.
DR
     Pfam; PF02202; Tachykinin; 1.
DR
     SMART; SM00203; TK; 1.
DR
     PROSITE; PS00267; TACHYKININ; 1.
KW
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation;
KW
     Pyrrolidone carboxylic acid.
FT
    MOD_RES
                   1
                          1
                                  PYRROLIDONE CARBOXYLIC ACID.
FT
     MOD RES
                  11
                         11
                                  AMIDATION.
     SEQUENCE
SO
                11 AA; 1293 MW; 3A247C2CC9CB1457 CRC64;
  Query Match
                          40.5%; Score 17; DB 1; Length 11;
  Best Local Similarity
                          75.0%; Pred. No. 1.6e+03;
  Matches
                                 0; Mismatches
             3; Conservative
                                                   1; Indels
                                                                  0; Gaps
                                                                              0;
            2 QPPP 5
Qу
              11 1
Db
            1 OPNP 4
```

```
TKN2 KASMA
     TKN2 KASMA
ID
                    STANDARD;
                                   PRT:
                                           12 AA.
AC
     P08614;
DT
     01-AUG-1988 (Rel. 08, Created)
     01-AUG-1988 (Rel. 08, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
    Hylambatin.
os
     Kassina maculata (African rhacophorid frog) (Hylambates maculatus).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Hyperoliidae;
OC
OC
     Kassina.
     NCBI TaxID=8414;
OX
RN
     [1]
RP
    SEQUENCE.
RC
    TISSUE=Skin secretion;
RA
     Yasuhara T., Nakajima T., Erspamer G.F., Erspamer V.;
RT
     "New tachykinins, Glu2, Pro5-kassinin (hylambates-kassinin) and
RT
    hylambatin, in the skin of the African rhacophorid frog Hylambates
    maculatus.";
RT
     Biomed. Res. 2:613-617(1981).
RL
     -!- FUNCTION: Tachykinins are active peptides which excite neurons,
CC
CC
         evoke behavioral responses, are potent vasodilators and
CC
         secretagogues, and contract (directly or indirectly) many smooth
CC
         muscles.
CC
    -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
     -!- SIMILARITY: Belongs to the tachykinin family.
CC
DR
     PIR; S07436; S07436.
DR
     InterPro; IPR002040; Tachy Neurokinin.
     Pfam; PF02202; Tachykinin; 1.
DR
DR
     PROSITE; PS00267; TACHYKININ; 1.
     Amphibian defense peptide; Tachykinin; Neuropeptide; Amidation.
KW
FT
    MOD RES
                                  AMIDATION.
                  12
                         12
                12 AA; 1441 MW; 3287CD2F0DD40AB7 CRC64;
     SEQUENCE
SQ
                          40.5%; Score 17; DB 1; Length 12;
  Query Match
  Best Local Similarity
                          75.0%; Pred. No. 1.8e+03;
  Matches
            3; Conservative
                                0; Mismatches
                                                                 0; Gaps
                                                                              0;
                                                 1; Indels
Qу
            4 PPLP 7
              \Pi
            2 PPDP 5
Db
RESULT 38
GER1 HORVU
     GER1 HORVU
                    STANDARD;
                                   PRT;
                                           13 AA.
AC
     P28525;
DT
     01-DEC-1992 (Rel. 24, Created)
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DT
DE
     Germin GS1 (Fragment).
OS
     Hordeum vulgare (Barley).
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
OC
     Triticeae; Hordeum.
OX
     NCBI TaxID=4513;
```

```
RN
     [1]
RP
     SEQUENCE.
     STRAIN=cv. CM 72; TISSUE=Root;
RC
     Hurkman W.J., Tao H.P., Tanaka C.K.;
RT
     "Germin-like polypeptides increase in barley roots during salt
RT
     stress.";
RL
     Plant Physiol. 97:366-374(1991).
CC
     -!- FUNCTION: May play a role in altering the properties of cell
CC
         walls during germinative growth.
CC
     -!- SUBUNIT: Oligomer (believed to be a pentamer but probably hexamer)
CC
         (By similarity).
CC
     -!- SUBCELLULAR LOCATION: SOLUBLE, MICROSOMAL AND CELL WALL FRACTIONS.
CC
     -!- TISSUE SPECIFICITY: Roots and coleoptile. In roots, present in
CC
         the mature region, but not in the tip. Not detected in leaves.
CC
     -!- INDUCTION: Increased by salt stress in roots and decreased by salt
CC
         stress in coleoptile.
CC
     -!- PTM: Glycosylated.
     -!- SIMILARITY: Belongs to the germin family.
CC
DR
     InterPro; IPR001929; Germin.
DR
     PROSITE; PS00725; GERMIN; PARTIAL.
KW
    Apoplast; Cell wall; Glycoprotein; Multigene family.
FT
     UNSURE
                  10
                         10
FT
    NON TER
                  13
                         13
     SEQUENCE
                13 AA; 1470 MW; 43FB588AA3B7B6D7 CRC64;
SQ
  Query Match
                          40.5%; Score 17; DB 1; Length 13;
  Best Local Similarity
                          75.0%; Pred. No. 1.9e+03;
  Matches
                                 0; Mismatches
             3; Conservative
                                                   1; Indels
                                                                  0; Gaps
                                                                              0;
            3 PPPL 6
Qу
              \perp
            3 PSPL 6
Db
RESULT 39
GER2 HORVU
     GER2 HORVU
                    STANDARD:
                                   PRT:
                                           13 AA.
AC
     P28526;
DT
     01-DEC-1992 (Rel. 24, Created)
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DE
     Germin GS2 (Fragment).
OS
     Hordeum vulgare (Barley).
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
OC
    Triticeae; Hordeum.
OX
     NCBI TaxID=4513;
RN
    [1]
RP
     SEQUENCE.
RC
     STRAIN=cv. CM 72; TISSUE=Root;
     Hurkman W.J., Tao H.P., Tanaka C.K.;
RA
RT
     "Germin-like polypeptides increase in barley roots during salt
RT
     stress.";
RL
     Plant Physiol. 97:366-374(1991).
CC
     -!- FUNCTION: May play a role in altering the properties of cell walls
CC
         during germinative growth.
CC
     -!- SUBUNIT: Oligomer (believed to be a pentamer but probably hexamer)
```

```
CC
         (By similarity).
CC
    -!- SUBCELLULAR LOCATION: SOLUBLE, MICROSOMAL AND CELL WALL FRACTIONS.
CC
    -!- TISSUE SPECIFICITY: Roots and coleoptile. In roots, present in the
CC
        mature region, but not in the tip. Not detected in leaves.
CC
    -!- INDUCTION: Increased by salt stress in roots and decreased by salt
CC
        stress in coleoptile.
CC
    -!- PTM: Glycosylated.
CC
    -!- SIMILARITY: Belongs to the germin family.
DR
    InterPro; IPR001929; Germin.
DR
    PROSITE; PS00725; GERMIN; PARTIAL.
    Apoplast; Cell wall; Glycoprotein; Multigene family.
KW
    UNSURE
FT
                  10
                         10
FT
    NON TER
                  13
                         13
    SEQUENCE
               13 AA; 1484 MW; 43FB4A1AA3B7B6D7 CRC64;
SQ
  Query Match
                          40.5%; Score 17; DB 1; Length 13;
                         75.0%; Pred. No. 1.9e+03;
  Best Local Similarity
                                                                 0; Gaps
 Matches
            3; Conservative
                              0; Mismatches
                                                  1; Indels
                                                                             0;
            3 PPPL 6
Qу
             + 11
           3 PSPL 6
Db
RESULT 40
SODM CANFA
    SODM CANFA
                                   PRT;
ID
                    STANDARD;
                                           13 AA.
AC
     P54712;
DT
     01-OCT-1996 (Rel. 34, Created)
     01-OCT-1996 (Rel. 34, Last sequence update)
DT
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
     Superoxide dismutase [Mn], mitochondrial (EC 1.15.1.1) (Fragment).
GN
    SOD2.
os
    Canis familiaris (Dog).
OC
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
    Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OC
OX
    NCBI TaxID=9615;
RN
    [1]
RP
    SEQUENCE.
    TISSUE=Heart;
RC
    MEDLINE=98163340; PubMed=9504812;
RX
    Dunn M.J., Corbett J.M., Wheeler C.H.;
RA
    "HSC-2DPAGE and the two-dimensional gel electrophoresis database of
RT
RT
    dog heart proteins.";
RL
    Electrophoresis 18:2795-2802(1997).
CC
    -!- FUNCTION: Destroys radicals which are normally produced within the
CC
         cells and which are toxic to biological systems.
    -!- CATALYTIC ACTIVITY: 2 superoxide + 2 H(+) = O(2) + H(2)O(2).
CC
CC
    -!- COFACTOR: Binds 1 manganese ion per subunit (By similarity).
    -!- SUBUNIT: Homotetramer (By similarity).
CC
CC
    -!- SUBCELLULAR LOCATION: Mitochondrial matrix.
CC
    -!- SIMILARITY: Belongs to the iron/manganese superoxide dismutase
CC
         family.
DR
    HSC-2DPAGE; P54712; DOG.
    InterPro; IPR001189; SODismutase.
DR
DR
    Pfam; PF00081; sodfe; 1.
DR
     PROSITE; PS00088; SOD MN; PARTIAL.
```

```
KW
     Oxidoreductase; Metal-binding; Manganese; Mitochondrion.
                         13
FT
     NON TER
                  13
SQ
     SEQUENCE
                13 AA; 1476 MW; 9C9651DE8BE0672A CRC64;
                          40.5%; Score 17; DB 1; Length 13;
  Query Match
                          75.0%; Pred. No. 1.9e+03;
  Best Local Similarity
  Matches
             3; Conservative
                                 0; Mismatches
                                                  1; Indels
                                                                 0; Gaps
                                                                              0;
            4 PPLP 7
Qy
             \perp
Db
            5 PDLP 8
RESULT 41
SODM ENTAE
     SODM ENTAE
ID
                    STANDARD;
                                   PRT;
                                           15 AA.
     P22799:
AC
     01-AUG-1991 (Rel. 19, Created)
DT
DT
     01-AUG-1991 (Rel. 19, Last sequence update)
     10-OCT-2003 (Rel. 42, Last annotation update)
DT
DE
     Superoxide dismutase [Fe] (EC 1.15.1.1) (Fragment).
GN
     SODA.
os
     Enterobacter aerogenes (Aerobacter aerogenes).
OC
     Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC
     Enterobacteriaceae; Enterobacter.
OX
     NCBI TaxID=548;
RN
     [1]
RP
     SEQUENCE.
RX
    MEDLINE=91248479; PubMed=1368658;
RA
     Kim S.W., Lee S.O., Lee T.H.;
RT
     "Purification and characterization of superoxide dismutase from
    Aerobacter aerogenes.";
RT
     Agric. Biol. Chem. 55:101-108(1991).
RL
CC
     -!- FUNCTION: Destroys radicals which are normally produced within the
CC
         cells and which are toxic to biological systems.
CC
     -! - CATALYTIC ACTIVITY: 2 superoxide + 2 H(+) = O(2) + H(2)O(2).
CC
     -!- COFACTOR: Binds 1 iron ion per subunit (By similarity).
CC
     -!- SUBUNIT: Homodimer.
CC
     -!- SIMILARITY: Belongs to the iron/manganese superoxide dismutase
CC
         family.
DR
     PIR; PN0615; PN0615.
DR
     InterPro; IPR001189; SODismutase.
DR
     Pfam; PF00081; sodfe; 1.
DR
     PROSITE; PS00088; SOD MN; PARTIAL.
KW
     Oxidoreductase; Metal-binding; Iron.
FT
     NON TER
                  15
                         15
     SEQUENCE
                15 AA; 1756 MW; 352F3D949202E642 CRC64;
SQ
                          40.5%; Score 17; DB 1; Length 15;
  Query Match
                          75.0%; Pred. No. 2.2e+03;
  Best Local Similarity
  Matches
             3; Conservative
                              0; Mismatches
                                                  1; Indels
                                                                 0; Gaps
                                                                             0;
            4 PPLP 7
Qу
             1 11
Db
            5 POLP 8
```

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RESULT 42
PPK2 PERAM
     PPK2 PERAM
                                   PRT;
ID
                    STANDARD;
                                             8 AA.
AC
     P82692;
DT
     16-OCT-2001 (Rel. 40, Created)
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DΤ
     Pyrokinin-2 (Pea-PK-2) (FXPRL-amide).
DΕ
     Periplaneta americana (American cockroach).
os
OC
     Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
     Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattoidea;
OC
OC
     Blattidae; Periplaneta.
OX
     NCBI TaxID=6978;
RN
     [1]
RP
     SEQUENCE, FUNCTION, AND MASS SPECTROMETRY.
RC
     TISSUE=Corpora cardiaca;
RX
    MEDLINE=97353923; PubMed=9210163;
RA
     Predel R., Kellner R., Kaufmann R., Penzlin H., Gaede G.;
RT
     "Isolation and structural elucidation of two pyrokinins from the
RT
     retrocerebral complex of the American cockroach.";
RL
     Peptides 18:473-478(1997).
RN
     [2]
RP
    TISSUE SPECIFICITY.
RX
    MEDLINE=20189894; PubMed=10723010;
RA
     Predel R., Eckert M.;
RТ
     "Tagma-specific distribution of FXPRLamides in the nervous system of
RT
     the American cockroach.";
RL
     J. Comp. Neurol. 419:352-363(2000).
CC
     -!- FUNCTION: Mediates visceral muscle contractile activity (myotropic
CC
         activity).
CC
     -!- TISSUE SPECIFICITY: Corpora cardiaca.
     -!- MASS SPECTROMETRY: MW=883; METHOD=MALDI.
CC
CC
    -!- SIMILARITY: Belongs to the pyrokinin family.
DR
    InterPro; IPR001484; Pyrokinin.
DR
     PROSITE; PS00539; PYROKININ; FALSE NEG.
KW
     Neuropeptide; Amidation; Pyrokinin.
FT
    MOD RES
                   8
                          8
                                  AMIDATION.
                8 AA; 884 MW; C834176DD9D77775 CRC64;
SO
     SEQUENCE
  Query Match
                          38.1%; Score 16; DB 1; Length 8;
  Best Local Similarity
                          60.0%; Pred. No. 1.4e+05;
  Matches
             3; Conservative
                               0; Mismatches 2; Indels
                                                                  0; Gaps
                                                                              0;
Qу
            3 PPPLP 7
              11
                 - 1
Db
            2 PPFAP 6
RESULT 43
FAR9 ASCSU
ΙD
     FAR9 ASCSU
                                   PRT;
                                            9 AA.
                    STANDARD;
AC
     P43172;
DT
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     01-FEB-1996 (Rel. 33, Last annotation update)
DE
     FMRFamide-like neuropeptide AF9.
os
     Ascaris suum (Pig roundworm) (Ascaris lumbricoides).
```

```
OC
     Eukaryota; Metazoa; Nematoda; Chromadorea; Ascaridida; Ascaridoidea;
OC
     Ascarididae; Ascaris.
OX
     NCBI TaxID=6253;
RN
     [1]
RP
     SEQUENCE.
    MEDLINE=95380362; PubMed=7651904;
RX
RA
     Cowden C., Stretton A.O.W.;
RT
     "Eight novel FMRFamide-like neuropeptides isolated from the nematode
RT
    Ascaris suum.";
RL
     Peptides 16:491-500(1995).
CC
     -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
CC
         family.
KW
     Neuropeptide; Amidation.
\mathbf{FT}
    MOD RES
                   9
                                  AMIDATION.
     SEQUENCE
                9 AA; 1012 MW; 524F073774176877 CRC64;
SQ
  Query Match
                          38.1%; Score 16; DB 1; Length 9;
  Best Local Similarity
                          75.0%; Pred. No. 1.4e+05;
  Matches
            3; Conservative
                                 0; Mismatches 1; Indels
                                                                  0; Gaps
                                                                              0;
            3 PPPL 6
Qу
              \perp
Db
            4 PRPL 7
RESULT 44
MGMT BOVIN
     MGMT BOVIN
ΙD
                    STANDARD;
                                   PRT;
                                            9 AA.
AC
     P29177;
     01-DEC-1992 (Rel. 24, Created)
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
DT
     01-OCT-1996 (Rel. 34, Last annotation update)
     Methylated-DNA--protein-cysteine methyltransferase (EC 2.1.1.63) (6-0-
DE
    methylquanine-DNA methyltransferase) (Fragment).
DE
GN
    MGMT.
OS
     Bos taurus (Bovine).
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC
OC
     Bovidae; Bovinae; Bos.
OX
     NCBI TaxID=9913;
RN
    [1]
RP
     SEQUENCE.
RC
     TISSUE=Thymus;
RX
     MEDLINE=90174912; PubMed=2308822;
RA
     Rydberg B., Hall J., Karran P.;
RT
     "Active site amino acid sequence of the bovine O6-methylguanine-DNA
RT
     methyltransferase.";
     Nucleic Acids Res. 18:17-21(1990).
RL
CC
     -!- FUNCTION: Repair of alkylated quanine in DNA by stoichiometrically
CC
         transferring the alkyl group at the O-6 position to a cysteine
         residue in the enzyme. This is a suicide reaction: the enzyme is
CC
CC
         irreversibly inactivated.
CC
     -!- CATALYTIC ACTIVITY: DNA (containing 6-0-methylguanine) +
CC
         [protein]-L-cysteine = DNA (without 6-0-methylguanine) + protein
CC
         S-methyl-L-cysteine.
CC
     -!- SIMILARITY: WITH SEGMENTS OF E.COLI ADA AND OGT METHYLTRANSFERASE
CC
         WHICH ENCOMPASS THE ALKYL-ACCEPTOR RESIDUES.
```

```
DR
     InterPro; IPR001497; Methyltransf 1.
DR
     PROSITE; PS00374; MGMT; PARTIAL.
KW
     DNA repair; Transferase; Methyltransferase.
FT
     NON TER
                   1
     ACT SITE
FT
                   9
                          9
                                  ALKYL GROUP ACCEPTOR (BY SIMILARITY).
     NON TER
FT
                   9
                          9
                      967 MW; 325171A720476047 CRC64;
SQ
     SEOUENCE
                9 AA;
  Query Match
                          38.1%;
                                  Score 16; DB 1; Length 9;
  Best Local Similarity
                                  Pred. No. 1.4e+05;
                          66.7%;
  Matches
             2; Conservative
                                 1; Mismatches
                                                                              0;
                                                   0; Indels
                                                                  0; Gaps
            5 PLP 7
Qу
              1:1
            2 PIP 4
Db
RESULT 45
AH3 PRUSE
     AH3 PRUSE
ID
                    STANDARD;
                                   PRT;
                                            10 AA.
AC
     P29261;
DT
     01-DEC-1992 (Rel. 24, Created)
DT
     01-DEC-1992 (Rel. 24, Last sequence update)
DT
     01-NOV-1997 (Rel. 35, Last annotation update)
     Amygdalin beta-glucosidase II (EC 3.2.1.117) (Amygdalin hydrolase
DE
DΕ
     isozyme II) (AH II) (Fragment).
os
     Prunus serotina (Black cherry).
OC
     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC
     Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
     eurosids I; Rosales; Rosaceae; Amygdaloideae; Prunus.
OC
OX
     NCBI TaxID=23207;
RN
     [1]
RΡ
     SEQUENCE.
     TISSUE=Seed;
RC
     Li C.P., Swain E., Poulton J.E.;
RA
RT
     "Prunus serotina amygdalin hydrolase and prunasin hydrolase.";
RL
     Plant Physiol. 100:282-290(1992).
CC
     -!- CATALYTIC ACTIVITY: (R)-amygdalin + H(2)O = (R)-prunasin + D-
CC
         glucose.
CC
     -!- SUBUNIT: Monomer.
CC
     -!- DEVELOPMENTAL STAGE: Absent from maturing black cherry fruits
CC
         until 6 weeks after flowering. Then, concomitant with cotyledon
CC
         development, the level of enzyme increases with specificity for
CC
         embryonal tissues.
CC
     -!- PTM: Glycosylated.
KW
     Glycosidase; Hydrolase; Glycoprotein; Multigene family.
FΤ
     NON TER
                  10
                         10
     SEQUENCE
                10 AA; 1033 MW; 3331B8D051E04777 CRC64;
SO
  Query Match
                          38.1%;
                                  Score 16; DB 1; Length 10;
  Best Local Similarity
                          66.7%; Pred. No. 2.1e+03;
  Matches
             2; Conservative
                                 1; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0:
Qу
            4 PPL 6
              11:
Db
            3 PPI 5
```

```
RESULT 46
BPP2 BOTIN
     BPP2 BOTIN
                                   PRT;
                                           10 AA.
                    STANDARD:
     P30422;
AC
     01-APR-1993 (Rel. 25, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DΕ
     Bradykinin-potentiating peptide $4,3,1 (10C) (Angiotensin-converting
DΕ
     enzyme inhibitor).
OS
     Bothrops insularis (Island jararaca) (Queimada jararaca).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Bothrops.
OX
     NCBI TaxID=8723;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Venom:
RX
    MEDLINE=90351557; PubMed=2386615;
RA
     Cintra A.C.O., Vieira C.A., Giglio J.R.;
RT
     "Primary structure and biological activity of bradykinin potentiating
RT
     peptides from Bothrops insularis snake venom.";
RL
     J. Protein Chem. 9:221-227(1990).
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; B37196; B37196.
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
FT
    MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
                   1
                          1
SQ
     SEQUENCE 10 AA; 1213 MW; 30C53546C761F773 CRC64;
                          38.1%; Score 16; DB 1; Length 10;
  Ouerv Match
  Best Local Similarity
                          75.0%; Pred. No. 2.1e+03;
                                0; Mismatches
  Matches
             3; Conservative
                                                  1; Indels
                                                                  0; Gaps
            2 OPPP 5
Qy
              \perp
            7 QIPP 10
Db
RESULT 47
BPP2 BOTJA
ID
     BPP2 BOTJA
                    STANDARD;
                                   PRT:
                                           10 AA.
AC
     P01022;
DT
     21-JUL-1986 (Rel. 01, Created)
DT
     01-FEB-1994 (Rel. 28, Last sequence update)
DT
     28-FEB-2003 (Rel. 41, Last annotation update)
DE
     Bradykinin-potentiating peptide 10B (Angiotensin-converting enzyme
DE
     inhibitor V-6-II).
os
     Bothrops jararaca (Jararaca).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC
     Viperidae; Crotalinae; Bothrops.
OX
     NCBI TaxID=8724;
RN
     [1]
RP
     SEQUENCE.
```

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RC
     TISSUE=Venom;
RX
     MEDLINE=72118526; PubMed=4334402;
RA
     Ondetti M.A., Williams N.J., Sabo E.F., Pluscec J., Weaver E.R.,
RΑ
     Kocy O.;
RT
     "Angiotensin-converting enzyme inhibitors from the venom of Bothrops
     jararaca. Isolation, elucidation of structure, and synthesis.";
RT
RL
     Biochemistry 10:4033-4039(1971).
CC
     -!- FUNCTION: This peptide both inhibits the activity of the
CC
         angiotensin-converting enzyme and enhances the action of
CC
         bradykinin by inhibiting the kinases that inactivate it.
CC
         It acts as an indirect hypotensive agent.
DR
     PIR; A01255; XAVI6B.
KW
     Hypotensive agent; Pyrrolidone carboxylic acid.
FT
     MOD RES
                                  PYRROLIDONE CARBOXYLIC ACID.
                   1
                          1
SQ
     SEQUENCE
                10 AA; 1232 MW; 30C53546C7741773 CRC64;
                          38.1%; Score 16; DB 1; Length 10;
  Query Match
                          75.0%; Pred. No. 2.1e+03;
  Best Local Similarity
             3; Conservative
                                 0; Mismatches
                                                   1; Indels
                                                                  0; Gaps
                                                                              0;
            2 QPPP 5
Qу
              1 11
Db
            7 QIPP 10
RESULT 48
UPA2 HUMAN
     UPA2 HUMAN
ID
                    STANDARD;
                                    PRT;
                                            10 AA.
     P30088;
AC
DT 01-APR-1993 (Rel. 25, Created)
     01-APR-1993 (Rel. 25, Last sequence update)
     15-MAR-2004 (Rel. 43, Last annotation update)
DT
     Unknown protein from 2D-page of plasma (Spot 10) (Fragment).
DE
     Homo sapiens (Human).
OS
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX
     NCBI TaxID=9606;
RN
     [1]
RP
     SEQUENCE.
RC
     TISSUE=Plasma;
RX
     MEDLINE=93092937; PubMed=1459097;
     Hughes G.J., Frutiger S., Paquet N., Ravier F., Pasquali C.,
RA
RA
     Sanchez J.-C., James R., Tissot J.-D., Bjellqvist B.,
RA
     Hochstrasser D.F.;
RT
     "Plasma protein map: an update by microsequencing.";
RL
     Electrophoresis 13:707-714(1992).
CC
     -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
CC
         protein is: 4.4, its MW is: 49 kDa.
     SWISS-2DPAGE; P30088; HUMAN.
DR
FT
     NON TER
                   1
                          1
FT
     UNSURE
                   6
                          6
                  10
FT
     NON TER
                         10
     SEQUENCE
SQ
                10 AA; 1079 MW;
                                  51AC54AAB77775B7 CRC64;
  Query Match
                          38.1%; Score 16; DB 1; Length 10;
                          50.0%; Pred. No. 2.1e+03;
  Best Local Similarity
  Matches
             2; Conservative
                                 1; Mismatches 1; Indels
                                                                  0; Gaps
```

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Qу
           1 MOPP 4
             : 11
Db
            3 LSPP 6
RESULT 49
TIN1 HOPTI
ΙD
     TIN1 HOPTI
                    STANDARD;
                                    PRT;
                                            11 AA.
AC
     P82651;
     16-OCT-2001 (Rel. 40, Created)
DT
DΤ
     16-OCT-2001 (Rel. 40, Last sequence update)
DT
     15-MAR-2004 (Rel. 43, Last annotation update)
DE
OS
     Hoplobatrachus tigerinus (Indian bull frog) (Rana tigerina).
OC
     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
     Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranidae;
OC
     Hoplobatrachus.
OX
    NCBI TaxID=103373;
RN
RP
     SEQUENCE, FUNCTION, MASS SPECTROMETRY, AND DISULFIDE BONDS.
RC
    TISSUE=Skin secretion;
RX
    PubMed=11031261;
ŔĀ
    Purna Sai K., Jaganadham M.V., Vairamani M., Raju N.P.,
RA
     Devi A.S., Nagaraj R., Sitaram N.;
RT
     "Tigerinins: novel antimicrobial peptides from the Indian frog Rana
RT
     tigerina.";
RL
     J. Biol. Chem. 276:2701-2707(2001).
CC
     -!- FUNCTION: Antibacterial activity against B.subtilis, E.coli,
CC
         S.aureus, M.luteus, P.putida and S.cerevisiae.
CC
     -!- SUBCELLULAR LOCATION: Secreted.
CC
     -!- TISSUE SPECIFICITY: Skin.
CC
     -!- MASS SPECTROMETRY: MW=1342; METHOD=MALDI.
KW
    Amphibian defense peptide; Antibiotic; Fungicide; Amidation.
FT
     DISULFID
                   2
                         10
FT
    MOD RES
                  11
                         11
                                  AMIDATION.
SO
    SEQUENCE
                11 AA; 1344 MW; A2087DC960476056 CRC64;
                          38.1%; Score 16; DB 1; Length 11;
 Query Match
 Best Local Similarity
                          66.7%; Pred. No. 2.3e+03;
 Matches
             2; Conservative
                                 1; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                               0;
Qу
            5 PLP 7
Db
            6 PIP 8
RESULT 50
TM2A METMA
ΙD
     TM2A METMA
                    STANDARD;
                                   PRT;
                                            12 AA.
AC
     P80652;
DT
     01-OCT-1996 (Rel. 34, Created)
DΤ
     01-OCT-1996 (Rel. 34, Last sequence update)
DT
     16-OCT-2001 (Rel. 40, Last annotation update)
DE
     Alternative tetrahydromethanopterin S-methyltransferase 28 kDa subunit
DE
     (EC 2.1.1.86) (N5-methyltetrahydromethanopterin--coenzyme M
DE
     methyltransferase 28 kDa subunit) (Fragment).
```

```
OS
     Methanosarcina mazei (Methanosarcina frisia).
OC
     Archaea; Euryarchaeota; Methanomicrobia; Methanosarcinales;
OC
     Methanosarcinaceae; Methanosarcina.
     NCBI TaxID=2209;
OX
RN
     [1]
RP
     SEQUENCE.
     STRAIN=Goel / Gol / ATCC BAA-199 / DSM 3647 / OCM 88;
RC
RX
     MEDLINE=96370840; PubMed=8774736;
RA
     Lienard T., Becher B., Marschall M., Bowien S., Gottschalk G.;
RT
     "Sodium ion translocation by N5-methyltetrahydromethanopterin:
RT
     coenzyme M methyltransferase from Methanosarcina mazei Gol
RT
     reconstituted in ether lipid liposomes.";
RL
     Eur. J. Biochem. 239:857-864(1996).
CC
     -!- FUNCTION: THIS ENZYME COMPLEX CATALYZES AN INTERMEDIATE STEP IN
CC
         METHANOGENESIS, THE FORMATION OF METHYL-COENZYME M AND
CC
         TETRAHYDROMETHANOPTERIN FROM COENZYME M AND N5-METHYL-
CC
         TETRAHYDROMETHANOPTERIN.
CC
     -!- CATALYTIC ACTIVITY: 5-methyl-5,6,7,8-tetrahydromethanopterin + 2-
CC
         mercaptoethanesulfonate = 5,6,7,8-tetrahydromethanopterin + 2-
CC
         (methylthio) ethanesulfonate.
     -!- SUBUNIT: COMPOSED OF SIX DIFFERENT SUBUNITS.
CC
CC
     -!- SUBCELLULAR LOCATION: Integral membrane protein.
KW
     Transferase; Methyltransferase; Transmembrane; Methanogenesis.
FT
     NON TER
                  12
                         12
     SEQUENCE
SQ
               12 AA; 1321 MW; 6DE4A5766232D76B CRC64;
  Query Match
                          38.1%; Score 16; DB 1; Length 12;
  Best Local Similarity 75.0%; Pred. No. 2.5e+03;
  Matches
            3; Conservative 0; Mismatches 1; Indels
                                                                0; Gaps
                                                                             0;
            4 PPLP 7
Qу
             1 11
Db
            6 PVLP 9
```

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Job time : 5.40299 secs